



AMERICAN RAILROAD JOURNAL, AND ADVOCATE OF INTERNAL IMPROVEMENTS.

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D. K. MINOR, EDITOR.

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CONTENTS :

To Correspondents ; Saratoga and Whitehall Railroad ; Delaware and Atlantic Railroad ; Macneill on Canal Navigation	page 257
To Contractors ; Railroad Speculations, &c.	261
Eastman's Central-discharging Water Wheel	262
Description of Scripture's Power-Press	263
New-York and Erie Railroad	264
Pennsylvania Canal and Railroads ; Lake Navigation ; First Boat at Buffalo ; New Locomotive ; Alexandria Canal Company, &c.	265
Literary Notices	266
Summary	267
Miscellany	270
Railroad Stocks, Advertisements, &c.	272

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NEW-YORK, MAY 2, 1835.

To CORRESPONDENTS.—Our esteemed friend, L.—W.—, will very much oblige us by communicating the result of his experience. He should not withhold from the general fund, his share of the contribution, because he happens not to have enjoyed the advantages of education in the language of his adopted country.

It is the facts, and useful information, which his long experience enables him to give, and not the well turned sentences of a polished scholar, that we desire him to furnish us with. Let him, then, and others also, give to the world, through the columns of our Journal, the benefit of a well spent life in contributing to the improvement of the "ways" of their native, or adopted country.

SARATOGA AND WHITEHALL RAILROAD COMPANY.—The capital stock (\$600,000,) having been readily subscribed on the opening of the books, the first directors named in the charter, consisting of Stephen Warren, Geo. R. Davis, Le Grand Cannon, Jonas C. Heart, John Paine, Elias Pattison, Erastus Corning, Lewis Benedict, John Townsend, John Knickerbacker, Geo. W. Kirchard, G. M. Davison, and Harmann Gansevoort, organized on the 20th ult. by the appointment of the following officers, who hold until the first election of the stockholders in June next: Stephen Warren, President ; G. M. Davison, Vice President ; John Paine, Secretary ; John Delafield,*

*Appointed a director in place of P. J. H. Myers, deceased.

Treasurer and Register of Transfers. Office in New-York.

We understand it is the intention of the Directors to cause this work to be commenced and completed without delay. The length of the road extending from Saratoga Springs to Whitehall, will be about 40 miles, over a very favorable country, not requiring stationary power. It will form an important link in the great thoroughfare from north to south; and when finished will, with the Laprairie and St. Johns, and Baltimore and Washington railroads, now in progress, afford an uninterrupted communication by steam between Quebec and Washington city, a distance of more than 800 miles! With such a facility, the northern travel, already heavy, will be greatly augmented, the intercourse with Canada increased, and the "northern tour" to summer visitants rendered double attractive. Indeed, when the Springs, Lake George, Montreal, and Quebec, can all be reached by steam, who will not be tempted to visit them? Certainly the road in question can hardly prove otherwise than a valuable and growing investment.

DELAWARE AND ATLANTIC RAILROAD.—Notice is hereby given, that the books for receiving subscriptions to the residue of the Stock of the Delaware and Atlantic Railroad, under the Supplementary Act, granting the Company the privilege of continuing their Road from its present termination at New Lisbon, to a point on the Atlantic between Barnegat and Tuckerton, will be opened on Wednesday, the 20th inst., from 10 to 3 o'clock, at the Merchants' Exchange, in the City of Philadelphia ; on Friday, the 22d, from 2 to 5 o'clock, at the house of Wm. Arnel, in the Borough of Borden-town ; and on Tuesday, the 26th inst., from 10 to 6 o'clock, at Falkenburg's Hotel, in the Town of Manahawkin, Monmouth Co. Subscribers to the above Stock will acquire equal rights with the present Stockholders, to that part of the Road already completed and now in successful operation, extending a distance of 14 miles from the Delaware River to New Lisbon. The sum of \$5 on each Share is required to be paid at the time of subscribing.

JOHN CHAMBERS,
JAMES NEWBOLD,
THOMAS HAINES,
JOSEPH SMITH,
WATSON NEWBOLD,
Commissioners.
Springfield, Burlington Co., N. J., May 1, 1835.

ON CANAL NAVIGATION, BY JOHN MACNEILL, ESQ.—We have been favored by a scientific gentleman of this city with a treatise on the subject of canal navigation, or the "resistance of water to the passage of boats on canals," by John Macneill, Esq., member of the Society of Civil Engineers, London, which gives a series of results

that will appear incredible to those who are not familiar with great speed in canal navigation. There are many persons who will require further evidence before they will believe that navigation can be carried on on canals at the rate of 10 to 14 miles per hour, without injury to the banks and that too on a canal narrower than the canals of this State ; and many others who will hardly credit the theory, that the resistance will be less on a narrow than broad canal ; yet such appears to be the opinion of those who have examined the subject, and experimented upon it. We shall continue our extracts from the work.

The engravings at page 260 are designed, figure 1 to give an idea of the reservoir and apparatus with which the numerous experiments described in this number were made by Mr. Macneill ; figure 2 represents the boats now in use on the Paisley canal—a full description of which will be given in our next ; fig. 3 shows a transverse section of the Paddington canal, breadth 36 feet, and greatest depth 4 feet 8 inches.

The following is the introduction of Mr. Macneill.

The results which I have arrived at by experiments are so much at variance with generally received theoretical deductions, that it is with much diffidence I submit these pages to the consideration of the public, and to those more immediately concerned in Inland Navigation. The following observations are made with a hope that those discrepancies between theory and practice may tend to a more rigid adherence to experimental inquiries in other branches of practical science, but especially, that they may lead to a more varied and extensive series of experiments to ascertain the best form of boats, not only at the cost of public companies, whose canal property may well demand it, but also at the expense of government, who lay out large sums in steam navigation ; for I trust it is clearly shown, that very great alterations and improvements may be made in the models of all ships and boats which are not impelled by the wind, and that passengers and light goods may be carried by canals at a velocity hitherto supposed to be impracticable.

On the Resistance of Water to the Passage of Boats on Canals, &c.

The laws which regulate the resistance and impulse of fluids are involved in such obscurity, that candid investigation of this

branch of science are compelled to confess, that the dissertations of the physico-mathematician have failed in utility, and that even the deductions of the logician have been almost altogether ineffectual. The assumptions of the former, from which propositions have been deduced, and theories given out, are, at best, founded only on an hypothesis; the reasonings of the latter rest upon limited experience, and, in some cases, ill observed phenomena. And there is probably no branch of science which has so much engrossed the attention of the philosopher, and from which so little practical good has resulted.

That such is the fact, and that the farther the subject has been investigated, the more difficulties have been met with, if not always acknowledged, few can venture to deny.

If, in his zeal for information, the inquirer of the present day searches the shelves of philosophy, his labor will terminate in the settled conviction, that this branch of science is but yet in its infancy, even although illustrated by the novel algebraical calculus, and the beautiful results derived from it by French ingenuity. A long course of patient experiment will alone warrant the adoption of formulæ; for as yet, as far as regards the mere resistance of the fluid, the practical application of the laws founded by the mathematician, has failed in producing any form which will rival the skiff of the Indian, the canoe of the Esquimaux, or the junk of the Chinese.

These observations apply to all boats and ships impelled by any other force than the wind; and this must not be forgotten, whilst we proceed to examine one particular department, viz. canal navigation. Every body moving in or upon the water, it will be seen, is under similar laws; and although the following results apply particularly to canal boats, they, nevertheless, are applicable to every other body which has to make its course by water.

The object immediately in view, when we place a boat or barge upon water, is a good conveyance for persons and property. So is it when we place a wheeled carriage upon a gravelled road, or a sledge upon snow. The difference, however, in the modes of attaining this object, has been most striking. In each of these cases, the body to be moved has been rested on soft or yielding matter, and whilst, in the two latter cases, no mechanician would provide for the wheels of the carriage, or the runners of the sledge, a facility for cutting along, immersed in the softer matter under them, the boat-builder seems to have studied how he could best keep his vessel ploughing her way. The case may be different with sea-going vessels, which are impelled by the action of a wind "on the beam," and ships of war, with their decks loaded with weighty guns; in such cases it is necessary that the vessel be a good deal immersed. Nor can it be satisfactorily shown, that even sea-going ships would not be improved by such a build as would enable them to rise to the surface of the water. But to pursue our *reductio ad absurdum*: there are many cases in navigation, where a sharp "cut-water" shape to a boat would be as unphilosophical as a knife-edged felloe would be to a wheel intended for ploughed land. A cart-wheel will, on gravel or other yielding matter, sink to the determined line of gravitation with as much certainty as will a boat upon water; and a boat resting in water will (according to the velocity given to it, and the form of its prow and bottom,) rise nearer the surface of the water, as well as a cart-wheel will rise

when put rapidly into motion. The difference of density is, no doubt, much greater in one case than in the other; but the water will resist the penetration of the boat in the same manner, though not in the same degree, as the soft gravel or mould resists the wheel. Notwithstanding a conclusion so obvious to those who know the laws of gravitation, and the properties of matter, so easily calculated by every one who understands any thing of the combination of forces,* we find it has been neglected in order to determine what law regulates the movement of a body immersed to the same depth, at all velocities.

At a time when it was generally held, that the resistance to a vessel in the water increased in the duplicate ratio of the velocity of the vessel through the water, the now keenly contested merits of railway transport, and canal transport, were brought under public discussion. Experiments were instituted in order to confirm this law of resistance, but it occurred to none of the experimentalists that, although they could not increase the density of the water, or harden it, as has been done with roads for carriages, that they could still increase the relative resistance of water, by giving the boat such velocity that her prow could not penetrate fast enough, and thus that she should rise out of the fluid. They might have reasoned, by a perfectly fair analogy between conveyance on land or on snow, and conveyance on water, and have legitimately concluded that, as their object was not to cut through gravel, but to get on it, in the one case, so at high velocities in the other, they should not have endeavored only to cut through the water, but also to raise the boat to the surface, and make her skim thereon.

Such facts are obvious to all, who have seen a boy make a thin stone skim the surface of a lake,—who have watched the action of a cannon ball on the smooth sea,—who have felt the difficulty of making any impression upon the stream forced from the small aperture of a fire-engine hose-pipe,—or, indeed, who know any thing of the properties of matter; but they had never been applied to the purposes of navigation, until it occurred to Mr. Houston, of Johnstone Castle, to try the effect of a light gig-shaped boat upon a canal; and it is very surprising that the most strenuous advocates for the adoption of such boats still reject the above facts, as irrelevant. It matters not whether the water be forced against the object, or the object be forced against the water.

In the month of June, 1830, Mr. Houston succeeded in having a light, long, and shallow wrought-iron canal boat, established upon the Ardrossan canal, in Scotland, between Paisley and Glasgow. Since that period, such boats have continued to run regularly, conveying about sixty passengers a distance of "twelve miles, at a rate of eight miles an hour, stoppages included." Succeeding improvements in the construction of the boat, as well as in the mode of working the horses, enable us to state the above as a minimum of performance. In the Appendix (A) will be found a specification of one of such boats, and Plates III.

* We find a good illustration of this resistance in "A Winter in Lapland and Sweden" by Arthur de Caillavet Brooker, 1727, p. 338.—"The real superiority of the skielobere is chiefly shown when the enemy halt after long march. Whatever precaution may then be taken, they are in constant danger from troops which have no occasion for path or road, and traverse with indifference marshes, lakes, rivers, and mountains. Even in those parts where the ice is too feeble to bear the weight of a man, the skielobere glides safely over, by the more rapidity of his motion."

IV. and V. show their form and dimensions. The following quotation from the advertisements, the truth of which is well authenticated, shows the cheap rate of conveyance.

	Distance.	Cabin.	Steerage.
Fare between Glasgow and Paisley.....	8 miles.	9d.	6d.
Fare between Glasgow and Johnstone.....	12	12	9
Fare between Paisley and Johnstone.....	4	5	3
Intermediate distance as in the way-bill.			

"The boats, at times, carry twelve hundred passengers in one day; and during eight months of last year, (1832,) notwithstanding the prevalence of cholera, they conveyed one hundred and twenty-six passengers, which is at the rate of fifteen thousand seven hundred and fifty, monthly."

Mr. Thomas Grahame, in his "Letter to Canal Proprietors and Traders," says, "The experiments of great velocity have been tried and proved on the narrowest, shallowest, and most curved Canal in Scotland, viz. the Ardrossan or Paisley Canal, connecting the city of Glasgow with the town of Paisley and village of Johnstone, a distance of twelve miles." The result has disproved every previous theory as to difficulty and expense of attaining great velocity on canals; and as to the danger or damage to the banks of canals by great velocity in moving vessels along them.

"The ordinary speed for the conveyance of passengers on the Ardrossan canal, has for nearly two years been from nine to ten miles an hour, and although there are fourteen journeys along the canal per day, at this rapid speed, the banks of the canal have sustained no injury. * * * * *

The boats are formed seventy feet in length, about five feet six inches broad, and, but for the extreme narrowness of the canal, might be made broader. They carry easily from seventy to eighty passengers, and when required, can, and have carried upwards of one hundred and ten passengers. The entire cost of a boat, and fittings up, is about £125. The hulls are formed of light iron plates and ribs, and the covering is of wood and light oiled cloth. They are more airy, light, and comfortable, than any coach. They permit the passengers to move about from the outer to the inner cabin, and the fares per mile are one penny in the first, and three farthings in the second cabin. The passengers are all carried under cover, having the privilege also of an uncovered space. These boats are drawn by two horses (the prices of which may be from £50 to £60 per pair) in stages of four miles in length, which are done in from twenty-two to twenty-five minutes, including stoppages to let out and take in passengers, each set of horses doing three or four stages alternately each day. In fact, the boats are drawn through this narrow and shallow canal at a velocity which many celebrated engineers had demonstrated, and which the public believed to be impossible."

Mr. Grahame then proceeds making apparent his want of confidence in railways—"The entire amount of the whole expenses of attendants and horses, and of running one of these boats four trips of twelve miles each (the length of the canal) or forty-eight miles daily, including interest on the capital, and twenty per cent. laid aside annually for replacement of the boats, or loss on the capital therein invested, and a considerable sum laid aside for accidents and replacement of the horses, is 700l. some odd shillings, or taking the number of working days to be three hundred and

twelve annually, something under 2*l.* 4*s.* 3*d.* per day, or about 1*l*. *d.* per mile. The actual cost of carrying from eighty to one hundred persons, a distance of thirty miles, (the length of the Liverpool railway,) at a velocity of nearly ten miles an hour, on the Paisley Canal, one of the most curved, narrow, and shallow canals in Britain, is therefore just 1*l.* 7*s.* 6*d.* sterling. Such are the facts, and incredible as they may appear, they are facts which no one who inquires can possibly doubt."

The following is a statement I am enabled to publish showing the gross expense of running old heavy boats on the Paisley canal at the rate of four miles per hour, and new light boats on the same canal at the rate of ten miles per hour, and the comparative expense per mile; also the number of passengers carried before and after the introduction of the high and cheap speeds.

Speed pr. hr.	Number of passengers carried.	Number of miles run each day.	Whole expense per year.	Cost pr. mile, year taken at 312 days.
1830* . . . 4	32831	48	700 <i>l.</i> 4 <i>s.</i> 7 <i>d.</i>	1 <i>l</i> . <i>d.</i>
1831† . . . 10	79455	vary'g	1316 <i>l.</i> 17 <i>s.</i> 5 <i>d.</i>	—
1832‡ . . . 10	148516	152	218 <i>l.</i> 5 <i>s.</i> 11 <i>d.</i>	10 <i>d.</i>

The power of conveyance thus established on the Paisley canal, may be judged of from the fact that on the 31st of December, 1832, and 31st of January, 1833, there were conveyed in these boats nearly 2,500 passengers.

The number of passengers continue to increase. The number carried in April, 1833, was twenty thousand, or at the rate of two hundred and forty thousand yearly.

It does, therefore, appear surprising, that canal owners in particular, whose property was daily becoming less valuable in the share market, by the alleged superiority of railway conveyances, should have been so blind or supine as to allow nearly three years to pass over, without making vigorous efforts to follow the successful example; but it is not the less true that they were, and indeed are still so; although, if the system be a good one, and practicable, and lucrative, as to me it appears undoubtedly to be, they could not have hit upon a more happy arrangement for keeping up their dividends, and for improving their property to a greater extent than it has arrived at, since the commencement of canal navigation in England. In many situations throughout the kingdom, where the quick transit of passengers, and even of light goods, was of consequence, it would not only enable the canal companies to compete with existing turnpike roads, but also to supersede the necessity for railways for general purposes.

We must suppose that canal proprietors did not credit the various reports in circulation as to the speed at which the boats were drawn upon the Paisley canal, the ease with which horses perform their work, and the small surge produced on the sides of the canal. But even supposing many of these reports to be exaggerated, and that false conclusions were come to by those who witnessed the performance, the great points of speed and economy were established to the satisfaction of many inquirers. Had the facts been known to canal proprietors, we should have expected the institution of a series of experiments long ere this, for ascertaining the actual resistance of boats at high velocities, and under every

variety of circumstance, as well as the best form of boat suited to these velocities; the height of the wave or surge, as well as its character and effects; and many other important features, which were now for the first time exhibited.

It is most unaccountable why canal companies did nothing to determine such; and it is to be hoped they may now be induced to institute extensive experiments. The few experiments which are detailed in the following pages, though made with as much accuracy as circumstances would admit, and though they are conclusive on some points, are by no means as extensive and varied as the importance of the subject demands. The scale of expenses was so exceedingly limited that they could not be carried farther, and others of still greater importance have not, in consequence, been undertaken, and remain yet to be made.

The energy and inquiring habits of Mr. Telford would not let such a practically useful inquiry remain dormant. He therefore directed me to make some preliminary experiments on a small scale, and to his liberality we are indebted for the first series, which were made entirely at his expense, in the National Gallery of Practical Science in Adelaide street; where the arrangements of the room were so admirable, and the accommodation, which the managers of the Gallery always gave for uninterrupted experiment during three weeks, was such,* that the most accurate results were obtained on a limited sheet of paper.

Plate (1.) represents the plan and elevation of the reservoir of water in the National Gallery of Practical Science in Adelaide street, with the apparatus which was fitted up by Mr. Saxton, for the purpose of making the experiments. The straight part of the reservoir is seventy feet long, and four feet wide, with upright sides. The wheel and axle, B & b, were of excellent workmanship; the axle on which the weight acted was of hard wood, three and a half inches in diameter, and the wheel on which the line that pulled the boats was coiled, was of brass, thirteen inches in diameter; the axis on which the wheel and axle turned was of polished steel, half an inch in diameter, working in brass. The pulley or sheeve F, f, which was attached to the tin box, or can, C & c, which held the weights, was of brass, two and a half inches in diameter, and its axis was of steel, with conical points working in brass. The line used for the weight was of cat-gut, one eighth of an inch in diameter, and the lines used for pulling the boats were, in some of the experiments, of silk, in others hemp, varying in thickness from one fortieth to one twentieth of an inch in diameter. The tension of the line in each experiment, or the force which was exerted on the boat by a given weight, placed in the bucket C & c, was not determined by calculations, but practically and accurately ascertained, not only by a spring dial placed on the line as at f, but also by an accurate beam and scales, furnished by Mr. Simms; by which means any mistake or inaccuracy in estimating the quantity of power, was effectually prevented. The boat is seen at (a, a,) as she appeared in her passage from one end of the straight canal to the other; the moving power being the weight in the bucket (C & c).

* Every gentleman who witnessed the experiments, and saw the facilities with which the Committee and their manager, Mr. Payne, gave, agreed with me in bearing testimony to the liberal and philosophical spirit with which we were treated. They not only allowed a large portion of the gallery to be set apart, and put themselves to considerable inconvenience, but ordered the free admission of all persons interested or assisting in the experiments.

In making some preparatory experiments it was found that a considerable space was necessary to be passed over by the boats, from the point of starting, before they acquired a uniform velocity. It was therefore found necessary to limit the distance over which the uniform motion was measured, to a space of fifty feet, and consequently, great accuracy was necessary in determining the time of the boat's transit over so short a space. I therefore applied to my friends, Messrs. Arnold and Dent, the celebrated chronometer makers, in the Strand, who, with that liberality which usually accompanies science, not only furnished me with chronometers, but Mr. Dent himself, more than once, assisted in measuring the time, and comparing it with that observed by Mr. Turnbull and Mr. Bourns, whose accurate and careful observations have contributed so much to the success of these experiments.

Occasionally two, and sometimes three chronometers were used, placed as at (A, A) on brackets, screwed to the side of the reservoir, at the commencement and at the end of the measured space.

Close to these chronometers, and exactly at fifty feet apart,* two brass wires were stretched across the reservoir, at eight inches above the surface of the water; by means of which wires the observers could determine the exact instant of time that the bow of the boat came under them, as they were slightly touched by a slender piece of brass wire, rising perpendicularly from the stem of the boat.

In some of the first experiments it was found extremely troublesome to ascertain the exact interval of time of the boats passing between the wires, in consequence of the chronometers having different rates of going; but this difficulty was obviated by a suggestion of Mr. Cubitt, who proposed that after a certain number of experiments, the place of the chronometers should be changed, and the experiments repeated. This effectually obviated the difficulty, and enabled us to get the time with great precision. In the latter experiments, only one chronometer was used; it was placed on the bracket at the first wire, and a line was brought from the second wire, along the side of the reservoir, up to the point: by which means, the observer, holding the line in his hand, and keeping his finger on the wire next him, was enabled to ascertain by the touch, the passage of the boat under each wire, and the exact time intervening between each wire, by counting the number of beats of the chronometer. These experiments were frequently repeated, and the times noted by different observers, without communicating the results to each other, until each series was completed, after which they were compared, and the mean time taken.

In making the experiments, the line was made fast to the stem of the boat, which was then drawn to the farther end of the reservoir; the required weight was put in the bucket, and on a signal being given, the boat was disengaged, and drawn by the weight in the bucket to the opposite end of the reservoir, where it was stopped by a bag of cork shavings (J). In some of these experiments an additional weight was allowed to act on the boat for the first twenty feet, in order to get up the velocity; then it was cut off, and the boat went on with the uniform velocity; this was accomplished by putting a ring of lead (x), weighing 20 pounds, on the top of the bucket holding the weights, and making this ring fast by

* In most of these experiments this distance was reduced to 30 feet, as shown in the "general plan."

Figure 1.

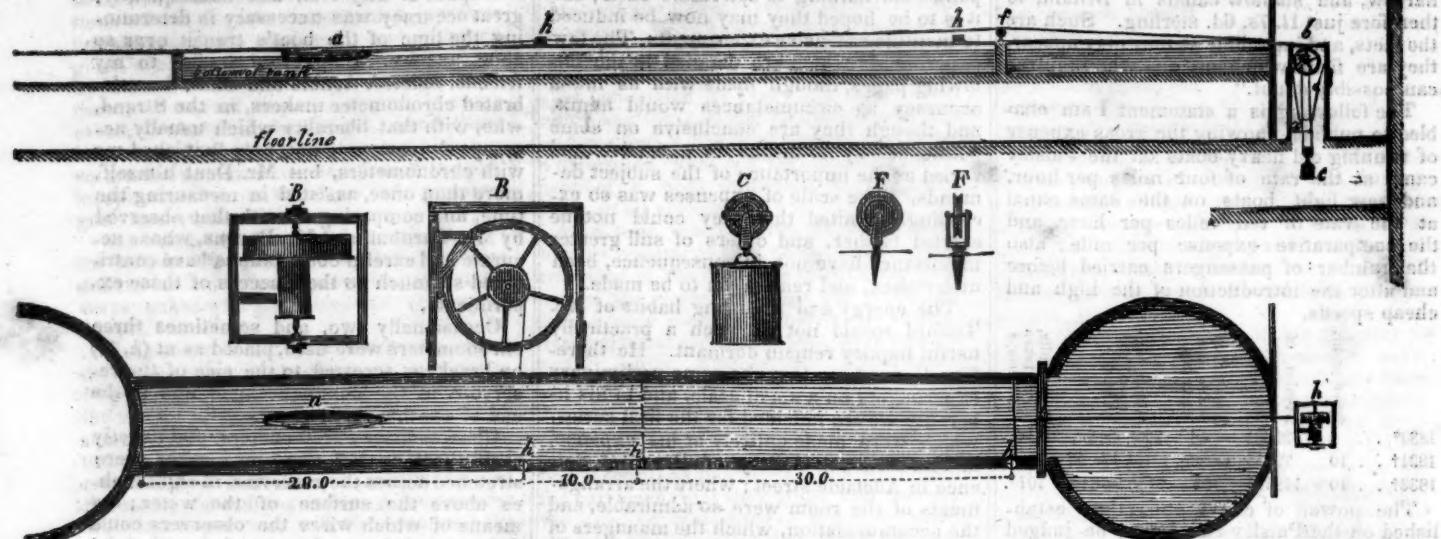


Figure 2.

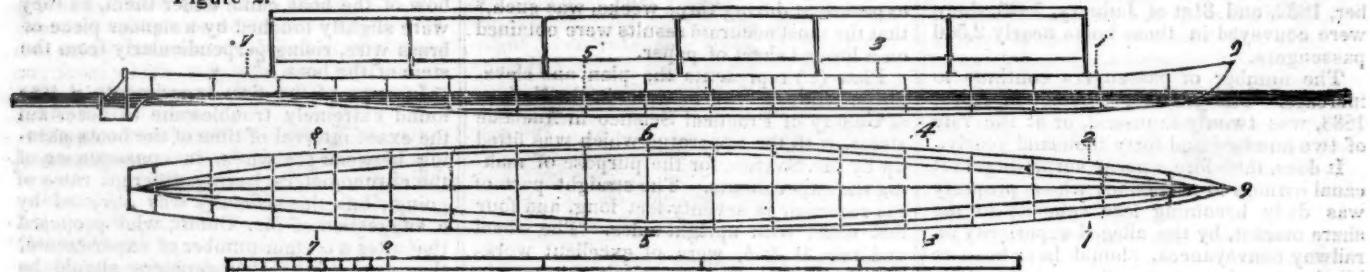
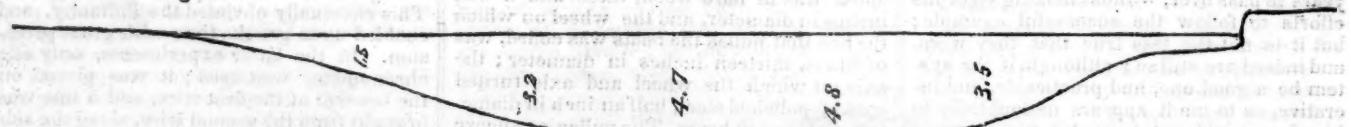


Figure 3.



four lines to the upper frame work, these lines being of sufficient length to allow the ring to act on the bucket, and to descend with it through a given space.

TABLE I.—Experiments made with different models over the sheet of water in the National Gallery of Practical Science, London, for the purpose of ascertaining the law of resistance, or force of traction at different velocities.

The boat used for the experiments was 10 ft. 2 inches long, 8.5-10 inches broad at water level, 3.5 inches deep, and when empty immersed 1.5 inches, and weighed 22.19 lbs.

In the first series of eight experiments, 17.06 lbs. of shot were placed in the centre of the boat, making its weight 39.25 lbs., and a line made fast to the boat, extended the length of the reservoir of water, and over a pulley, with one lb. weight attached to it. The length of the canal or reservoir in which the experiments were formed was 70 feet; but the space marked out to be passed over with a uniform velocity was 30 feet; the first part of the space being used merely to attain headway. The shortest period of passing the 30 feet marked off was 9.4-10, and the longest 10 seconds, giving an average rate of 2.089 miles per hour—with a force of traction or weight on the towing line during each experiment of 0.468 lbs.

and an average difference of $+0.40$ between theory and experiment.

In the second series of eight experiments, boat, load, and distance same as above, with 5 lbs. weight attached to the cord—the time was 7.0—7.0—7.0—7.0—7.20—7.4—7.0—7.0 seconds, and the average velocity 2.802 miles per hour—and the force of traction, or weight on the towing line, during each experiment, 1 lb., with a difference between theory and experiment of —0.102.

In the third series of eleven experiments, the boat, load, and distance same as in the first and second series, with 10 lbs. attached to the cord, time in seconds of passing the 30 feet with uniform velocity was 6.2—6.2—6.0—6.4—6.2—6.2—6.4—6.2—6.0—6.2—6.4—with an average of 3,290 miles per hour, and a force of traction of 1,718 lbs.—or weight on the towing rope during each experiment, giving a difference of —0.556 between theory and experiment.

In the fourth series of ten experiments, boat, load, and distance same as above, with 20 lbs. weight attached to the cord; the time in seconds of passing 30 feet was 4.0—4.2—3.8—3.4—4.0—4.0—3.8—4.0—4.0 seconds, or an average of 5.232 miles per hour, with a force of traction, or weight on the towing line during the experiments—giving a difference of —0.216 between theory and experiment.

In the fifth series of nine experiments, boat, load, and distance same as in preceding, with 40 lbs. weight attached to the cord, the time in seconds of passing 30 feet was as follows: 2.8—2.8—3.0—2.8—3.0—2.8—2.8—2.8—2.8 seconds, or an average of 2.916 miles per hour, with a force of traction, or weight on the cord, of 5.812 lbs. during each experiment, and —0.251 between theory and experiment.

In the sixth series of six experiments, boat, &c., as in preceding experiments, with 60 lbs. attached to the cord, the time of passing 30 feet was as follows, viz.: 2.2—2.0—2.2—2.2—2.0—2.0 seconds, or an average of 9.607 miles per hour, and force of traction of 8,500 lbs. on the towing line during each experiment—with a difference of +1.412 between theory and experiment.

In the seventh series of three experiments, weight of boat and cargo 53.06, distance 30 feet, with 10 lbs. weight attached to the cord, the time of passing 30 feet was as follows, 7.0—7.2—6.8; making an average of 2.932 miles per hour—force of traction, or weight on the towing line 1.718—giving a difference between theory and experiments of —0.800.

In the eighth series of five experiments, boat, cargo and distance, same as in preceding series, with 20 lbs. attached to the towing line, the time of passing 30 feet was as follows: 5.4—5.2—5.4—5.4—5.2—mean.

king an average of 3.845 miles per hour, with a force of traction, or weight on the towing line, of 3.156; making a difference between theory and experiments, of -1.568.

In the ninth series of eight experiments, the boat weighing 22.19 without load, the distance passed over, and weight attached to towing line, same as in the preceding, time of passing 30 feet was as follows, viz.: 3.0—3.0—2.9—3.2—3.1—3.2—3.0—3.2—at an average rate of 6.660 miles per hour, with a force of traction, or weight on the towing line during each experiment, of 3.156; making a difference between theory and experiment, of +1.608.

In the tenth series of four experiments, or from the 69th to the 72d, the boat, distance, space and weight, attached to the rope same as in preceding, the time of passing over 30 feet was as follows, viz.: 3.0—3.0—3.1—3.0, at an average rate of 6.763 per hour, with a force of traction, or weight on the towing line, of 3.156; making a difference between theory and actual experiment of +1.756. In this series, an additional 10 lbs. weight was added for the first 30 feet of the canal, to bring the boat to her full speed, before reaching the measured space of 30 feet.

In the eleventh series of seven experiments, or 73 to 79 inclusive, the boat, load and space passed over, same as in the first series, with a weight of 20 lbs. attached to the line, the time of passing 30 feet was as follows, viz.: 3.4—3.6—3.8—3.4—3.6—3.6—3.8, at an average rate of 5.691 per hour, with a force of traction, or weight on the rope, during each experiment, of 3.156, giving a difference between theory and experiments of +0.322. In this series an ac-

celerating force of 10 lbs. was added during the first 20 feet of the canal.

In the twelfth series, or from 80 to 82 inclusive, boat, load, space and power, (except the 10 lbs. additional,) as in the preceding time as follows: 3.8—4.0—3.6, with an average of 5.392 per hour, and a power of traction of 3.156, and a difference of -0.034 between theory and experiment.

In the thirteenth series, from 83 to 87 inclusive, boat, load and space, same as in preceding, with 40 lbs. weight, (and 10 lbs. additional to 86 and 87,) the time in passing the thirty feet, was as follows, viz.: 2.8—2.7—2.7—2.7—with an average speed, of 7.521 miles per hour, force of traction of 5.812; making a difference between theory and experiment, of +0.263.

In the fourteenth series, or from 88 to 92 inclusive, boat, load and space, same as in preceding, with 70 lbs. attached to the rope, the time of passing over the 30 feet was 1.9—1.9—1.8—1.6—2.0—with an average rate of 11.180 miles per hour, power of traction 9.863; making a difference between theory and experiment of +3.561.

In the fifteenth series, from 93 to 101 inclusive, boat and space, same as in preceding, and in No. 1, with 80 lbs. attached to rope, the time of passing 30 feet was as follows: 1.9—1.8—1.8—1.8—1.8—1.6—1.6—1.6—or an average of 11.928 miles per hour, and a power of traction of 11.217, and a difference between theory and experiment of 4.063.

The following experiments are given in full as contained in the table, and not, as in the previous descriptions, in a condensed form.

Number of Experiments.	Weight of Boat and Cargo, lbs.	Space passed over, feet.	Time, seconds.	Miles per hour.	Moving Power, lbs.	Force of traction, or weight on the rope.	Force of traction calculated as squares of velocities.	Difference between theory & experiment.	GENERAL REMARKS.	
102	39.25	30	3.1	6.598	40	5.812	4.675	-1.137	One weight was placed in the centre of the boat; another weight 18 inches from the centre, abaft; and another 15 inches from the centre, forward.	
103	"	"	3.0	6.818	"	"	4.992	-0.820		
104	"	"	2.7	7.575	"	"	6.162	+0.350		
105	"	"	3.6	5.681	20	3.156	3.466	+0.310		
106	"	"	3.8	5.332	20	"	3.111	-0.045		
107	"	"	3.6	5.681	"	"	3.466	-0.310		
108	"	"	3.8	5.382	"	"	3.111	-0.045		
109	"	"	3.8	5.382	"	"	3.111	-0.045		
110	"	"	5.6	3.653	"	"	1.433	-1.723		
111	"	"	3.1	5.382	"	"	3.111	-0.045		
112	"	"	3.8	5.532	"	"	3.111	+0.045		
113	"	"	3.9	5.245	"	"	2.954	-0.202		
114	"	"	3.9	5.245	"	"	2.954	-0.202		
115	"	"	2.0	10.227	60	8.500	11.233	+2.733		
116	"	"	2.0	10.227	60	"	11.233	+2.733		
117	"	"	2.0	10.227	60	"	11.233	+2.733		
118	"	"	1.5	13.636	80	11.217	19.970	+8.753		
119	"	"	1.6	12.784	80	11.217	17.532	+6.335		
120	"	"	1.5	13.636	90	12.619	19.970	+8.351		
121	"	"	1.4	14.610	90	12.619	22.294	+10.305		
122	"	"	1.5	13.636	90	12.619	19.970	+7.351		
123	"	"	1.5	13.636	90	12.619	19.970	+7.351		
124	"	"	1.4	14.610	100	14.021	22.294	+8.903		
125	"	"	3.8	5.532	10	1.718				
126	"	"	4.0	5.113	10	1.718				
127	"	"	3.6	5.681	30	4.359				
128	"	"	3.0	6.818	50	7.265				
129	"	"	3.2	6.392	50	7.265				
130	"	"	3.6	5.681	50	7.265				
131	"	"	2.6	7.867	10	1.718				
132	"	"	2.8	7.305	10	1.718				
133	"	"	2.6	7.867	10	1.718				
134	"	"	1.8	11.363	20	3.156				
135	"	"	1.8	11.363	20	3.156				

It will be observed in the above tables, that as the velocity was increased, the power did not require to be increased in any thing like the duplicate ratio, and that the difference shown in the above column, betwixt the theory of the duplicate ratio and the actual experiment, becomes greater as the velocity is increased. I select from these experiments the following as instances.

They are not taken from the means, but from the items of the experiments themselves.

At a velocity per hour of

2.763 miles, 1. lb is required, or	180 more
5.382 " 3.156 " "	.045 "
5.382 " 3.156 " "	.045 "
10.765 " 9.863 " "	2.583 less
6.392 " 3.156 " "	3.223 "
12.784 " 11.217 " "	6.335 "

I call attention particularly to these individual experiments, in order that the wide deviation may be noticed, and serve to shake the confidence still entertained by the adherents of the old school, who cannot allow that a high velocity is attainable upon canals with economy. Not that I consider the old law of the squares to be incorrectly stated; in so far as the boat remains immersed in the water to the same water line, that law may be correct; but that whenever the velocity of the boat is increased beyond a certain point, as will be seen hereafter, the boat emerges a little out of the water, and skims nearer the surface. The transverse section of immersion being lessened. This will be proved as we proceed.

Such facts being obtained and found to differ so widely from the opinions of philosophers, it was exceedingly desirable that they should not go forth to the public without the fullest confirmation. Happily for science, Colonel Page, Chairman of the Kennett and Avon Canal Company, to whose exertions and liberality it is entirely owing, induced the principal canal companies in England* to subscribe towards paying the expenses of an extended course of experiments with a large boat. I accordingly proceeded to Scotland, and purchased one of the Paisley Canal Company's quick boats, "the Swallow," which we afterwards named the "Grahame and Houston," in compliment to the two gentlemen who have been so eminently successful in improving the canal conveyance of Scotland. Indeed, Mr. Grahame's letters on the subject of canal navigation will furnish the most satisfactory reason why we should have used his name for the boat.

* The Grand Junction, the Kennett and Avon, the Aire and Calder, the Oxford, and the Leeds and Liverpool.

The National Intelligencer says: We refer those who are interested in such undertakings, to the invitation to contractors, given by the Georgia Union Railroad Company, in this day's paper. Lest any persons in the northern parts of the Union, disposed to offer for the contract, may be deterred by apprehensions of unhealthfulness of the country through which the road passes, we think it proper to state that the route of the road pursues the elevated ridge separating the waters falling into the Savannah river from those falling into the Ogeechee and Oconee rivers, and is presumed to be as healthy as any tract in the Southern country. The length of this road is 75 miles, and it is intended to extend branches to Athens and to Madison, making in all 145 miles of railway.

The New-Brunswick Freeman says, that Railroad Stocks are all the go now-a-days, among the speculators and capitalists. A few days since books were opened in Philadelphia for subscription to the stock of the Lancaster, Portsmouth and Harrisburg Railroad. In thirty-one minutes every share was taken, and a large number applied for beyond the ability of the Commissioners to supply.

The stock of the New-Jersey Railroad and Transportation Company is gradually advancing to its real value. It is eagerly sought after now at 126, and will, it is believed, not stop much, if any, short of 200. The stock of the Camden and Amboy Railroad is also selling at an advance of something like fifty per cent.

It is stated by the Belfast, Maine, Advocate, that there will be sawed on the Penobscot this year, one hundred and fifty million feet of boards—worth at the mills three millions of dollars.

Central-discharging Water Wheel.

New York, March 18th, 1835.

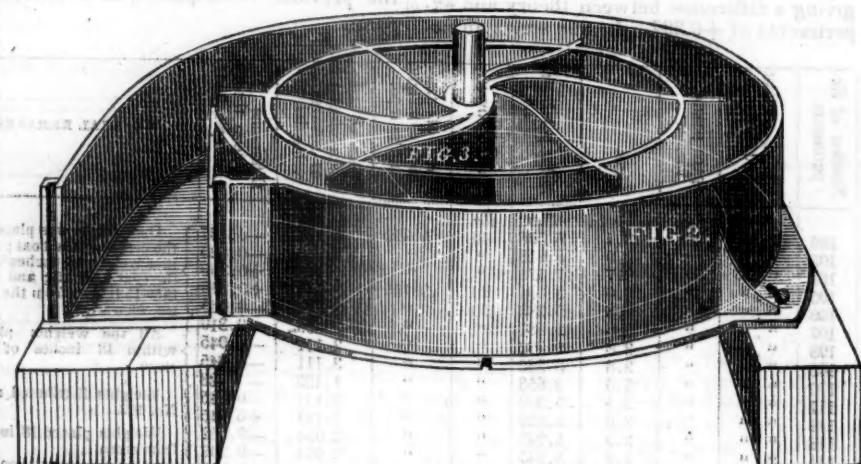
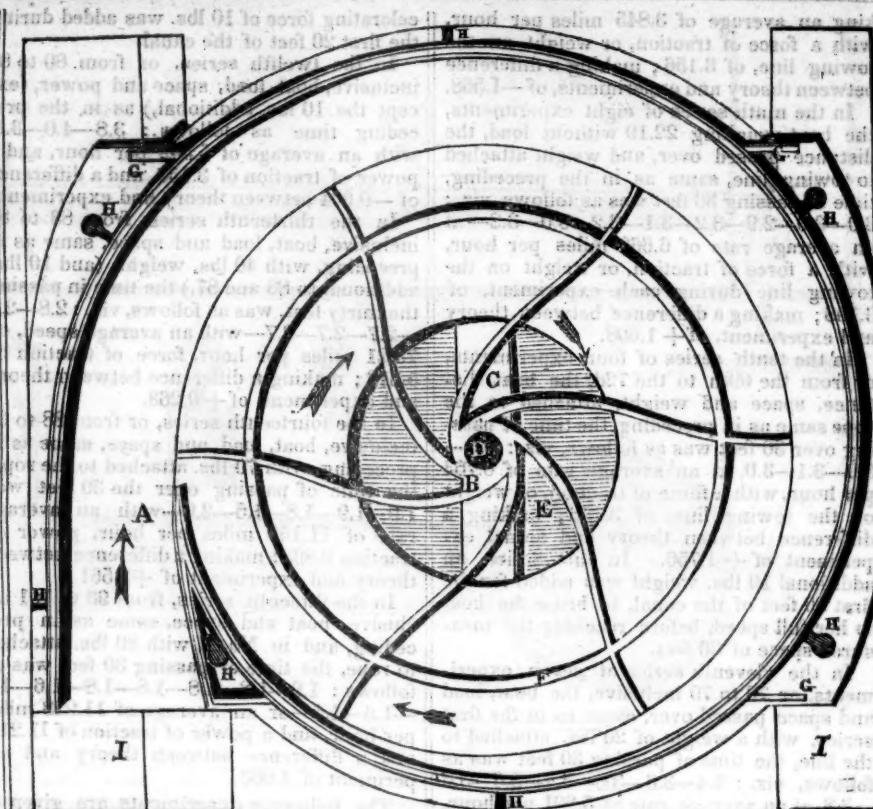
To the Editor of the Mechanics' Magazine:

Sir.—I herewith forward you a drawing of Joel Eastman's Central-discharging Water Wheel, patented lately. The inventor died before he had brought it to that degree of perfection it has now attained. The undersigned being a joint patentee, has devoted considerable attention to this wheel, in order that he might present it to the public for their patronage, in a form that would do them, and the wheel itself, justice. This, he thinks, has now been fully attained. During the last year, many of them have been built and put in motion in the western part of New York, with a degree of success unprecedented. The wheel is adapted to all degrees of head and fall. It runs as well in backwater as out of it, the head being the same. In cold climates, where the ice is troublesome, this wheel is a relief from the difficulty, as it can be so placed that ice cannot form near it. It may be wholly buried in water to effect this object, in which case the shaft must be surrounded with a water-tight case, to prevent the water from coming into the wheel around the shaft, as that would injure its action.

In many instances this wheel has been put in comparison with those before in use, and in every instance the comparison has been very much in its favor. A few facts on this point will be stated in this place, believing they will be acceptable to your readers, and especially interesting to mill owners.

The first wheel which the undersigned put in operation was for Messrs. Ford & Chapman, Clyde, Wayne County. The head and fall in this case was 4 feet; it took the place of a reaching wheel, and was designed to carry two large double carding machines, pecker, and a grind-stone. The wheel was made of wood, 4½ feet diameter, 4 arms, or floats, morticed through the shaft, 12 inches wide. The throat was 8 inches wide, and 12 inches high, = 96 square inches area of water. The reaching wheel had 12 openings, whose aggregate area amounted to 336 square inches. In this place it should be remarked, that, from the peculiar nature of this wheel, it does not expend the water so fast under the same head and aperture, as in the case of the wheels in common use. When the wheel runs light, or without a load, the difference is one half; in other words, only half as much water is expended as would flow through the same aperture when the wheel is removed out of the way. This has been ascertained by experiment. When the wheel is charged with its ordinary load, the expense of water is one third less than is discharged under the same head and aperture on an undershot wheel; so that in the case above, where the aperture was 16 inches, the expense was only equal to 62 inches.

When this wheel was set to work, it was found to exert more power than the reaching wheel, which the millwrights in this case judged consumed from four



to six times as much water. When the operation of fulling commenced, this wheel was found able to finish a stock of cloth in six hours that used to require eight hours by the reaching wheel. This wheel was built and put in motion in three days by four men, and, as may be supposed from the above statement, gave great satisfaction. The proprietors, among the most intelligent mill owners in the State, unsolicited, have furnished me with a statement of the performance of this wheel, certified.

Another wheel was put in motion in Eldridge. It took the place of a tub wheel, 6½ feet diameter, which received 280 inches of water. This wheel was 5 feet 10 inches, used just one half of the water required by the tub wheel to drive a pair of heavy rock cornstones, and with one half the water it ground faster.

In Courtland County, there are about

20 of these wheels in use, generally with a head and fall of about 5 feet, on a stream very sluggish, and in time of floods the head is sometimes reduced to 16 inches; still the wheel goes, though with less power, bearing a just proportion to the head and fall. The general rate of the performance of this wheel is, that it requires only half the water used on the ordinary undershot, tub, and flutter wheels, and about one third less than a low breast wheel; and, as it is known that the overshot wheel doubles the working effect with some water and head used by the undershot, it follows from analogy that this wheel (being found to do the same) is equal to the overshot in its effect. It has not been tested against an overshot wheel, except in one instance, a common country mill; in this case it exceeded the overshot in effect, but it is not considered a satisfactory experiment. The under-

signed, however, is so well convinced that it will equal the overshot in its performance, that he would not hesitate to put it to the test under a heavy forfeiture.

Millwrights, generally, when they first see the plan, are inclined to treat it with utter contempt; which, in every case that has come under observation, has been subdued. When they have seen the wheel at work, they uniformly give it up, and admit that it excels all other wheels for low heads, although its being so small and simple puzzles them to account for the effect.

This wheel is also well adapted for saw-mills. When used for this purpose, the shaft is usually placed horizontal, and the wheel vertical. If the head is less than 6 feet, then the best way to apply it to sawing is to form the wheel of its usual size, varying from 4 to 6 feet, according to head and fall, and gear to the crank shaft by two small bevel wheels. There are several saw mills in operation on both of these plans; that is, when the motion is given directly to the crank shaft by the wheel being on it, and by gearing. The accompanying drawing represents one of these wheels, made entirely of cast iron, except seven screw bolts, to secure it in its place upon a foundation of bed timbers. Fig. 1 represents a plan. Fig. 2, a view of the same in perspective. The circle in which the wheels revolve is $4\frac{1}{2}$ feet, about medium size. Fig. 3 shows the wheel in its place, the floats being connected and supported by a ring of iron near their extremities. A represents the throat, by which the water is admitted, 10 wide by 13 high, forming an aperture of 130 square inches. B on the plan represents the wheel; C, the bed piece, supporting the step of the shaft; D, the shaft; E, the opening in the bottom of the case containing the wheel, by which the water is discharged, 2 feet in diameter, equal to 452 square inches. The general rule is, to make the discharging circular opening about four times the dimensions of the aperture by which the water is admitted on the wheel. F, the ring of support to the floats. G G G, brackets to add strength. H H, &c., holes and notches, to admit of bolts to secure the whole together, and to the bed timbers, I I.

The top of the case, in which the wheel revolves, is not shown in the drawing; it is made to fit on the top edge of the rim, forming the spiral exterior of the wheel; a groove of slight depth is formed in it, to admit of making it tight. The throat enlarges outward, and at its extremity on either side is provided with vertical grooves, the more readily to admit of connecting it with the flume. A wheel of this size will weigh from 2000 to 2500 lbs., and can be put up, all expense included, for about \$150. Nearly all the wheels in use are made of wood, in the following manner, viz.: a course of $2\frac{1}{2}$ or 3 inch plank is laid level in the bed timbers; the rim, or circumference, is formed of timber framed together at the corners, and curved out so as to form the proper inside shape. The top

is to be formed also of plank jointed together, and the whole well secured together; an opening must be left through the top, to admit the shaft to turn freely, without rubbing.

The periphery of the wheel case varies as much from a true circle as is equal to the breadth of the throat. A convenient mechanical method of generating this spiral curve is as follows: when the breadth of the throat is determined on, prepare a circular piece of wood, whose circumference is equal to the breadth of the throat; plant this circle exactly in the centre of the shaft; then fasten a small wire to the side of the circle opposite the throat, and in a loop prepared for the purpose, put the point of the scribe, and proceed to trace the curve; when an entire revolution is made, the wire will be wound once around the circular plane in the centre, and of course the radius will be shortened just the breadth of the throat. This is a convenient and true method of generating the required spiral curve.

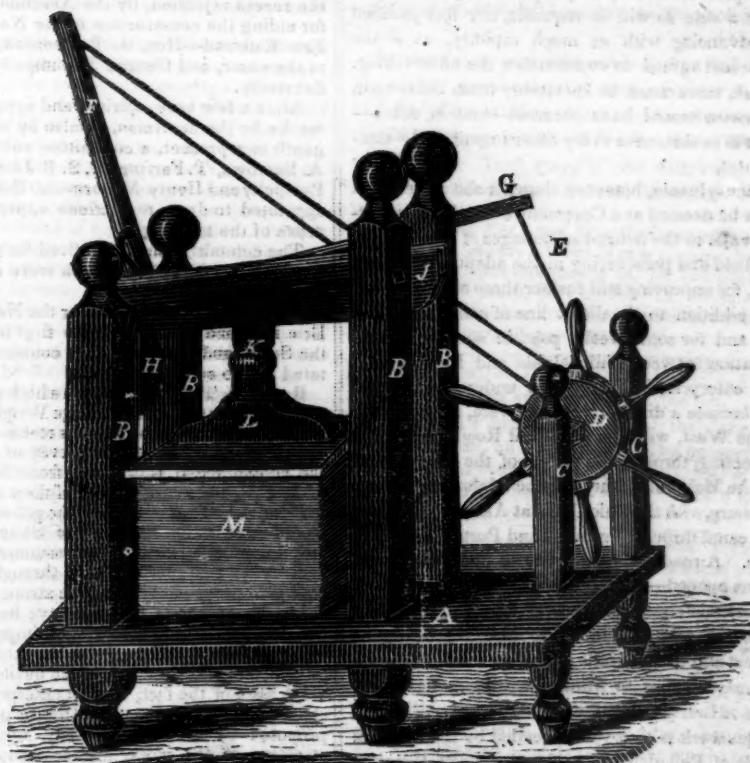
In conclusion, it may be remarked that this wheel is entirely new; in form it is very simple, small in bulk, having no friction except on the journal of the shaft, and the friction of the water in passing through the case. When the

head and fall is eight feet and upwards, no gearing is necessary to give the proper motion to millstones; and when the head of water is below eight feet, single gearing, quite small, is all that is necessary. This wheel runs nearer the motion of the water than any other; and from the known effects of its operation, it clearly proves that water, when acting by its impulsive force, if such force can be intercepted, as is the case in this wheel, yields its maximum effect, equal gravity.

Having thus, sir, at some length, given a description of this new wheel, and the mode in which it may be constructed, should you deem it worthy, you are at liberty to give it a place in your valuable journal. The right to use this invention in all the States and Territories, except Delaware, New-Jersey, New-York, and the Eastern States, is not disposed of. Persons wishing to purchase the right for a State, County, Town, River, or a single dam, will be met on liberal terms by addressing me, post-paid, at this place. The wheel must, in all cases, be properly portioned to the head and fall in any given case, and the power required.

Yours respectfully,

JOHN MARTINEAU.



[From the Mechanics' Magazine.]
Description of Scripture's Power-Press.

On the platform, A, stand six posts, four long, B B B B, and two short, C C. Between the latter is suspended the windlass, D, upon a horizontal shaft, to which is attached one end of the rope, E, which passes in an inclined direction over a sheave in the upper end of an elevated post, F, the foot of which is secured by bolts, or staples, upon one of the long posts, from which sheave the said rope is

returned several times around the shaft of the windlass, D, and is fastened to the outer end of the acting lever, G, the opposite end of which lever is connected by means of an elliptical lever, H, to the power beam, J, which, by the operation of the windlass, D, forces down the moving fulcrum and follower, K and L, upon the material to be acted upon, M.

When this press is arranged for light pressure, as in the pressing of cheese, &c., a weight suspended upon the end of

the acting lever, G, is used instead of the windlass power, as above described.

The proposed advantages of this press, whether employed in heavy or light pressure, is derived from its powerful compound leverage, uniting economy in construction, with facility and simplicity of operation. This press is well adapted, by a proper variation of its size, to the various purposes of letter pressing, seal and metal stamping, cotton, tobacco, cheese, &c.; for all of which it is manufactured and for sale by FRANCIS S. LANE, 279 Bleecker, corner of Barrow street, New-York.

N. Y. AND ERIE RAILROAD.—We publish to-day the proceedings of a public meeting, at Owego, in reference to the rejection, by the Legislature, of the application of the N. Y. and Erie Railroad for aid in constructing that work.

It is not surprising that, in the portion of the State whence these proceedings come, there should be such a feeling of resentment against the Legislature, for refusing the assistance which they might, with such perfect safety, have afforded to this enterprise; and which, timely given, would insure its prompt accomplishment.

The Company having it in charge, are indeed earnest in pushing on the work, but they cannot, from private subscription, hope to obtain at once so large a sum as will be requisite, nor feel justified in advancing with as much rapidity, as if the State had agreed to countenance the undertaking. Hence, there must be inevitably more delay than otherwise would have occurred—and in delay—there is in this, as in every other urgent case—danger.

Pennsylvania, however sluggish she may sometimes be deemed as a Commonwealth, is abundantly awake to the natural advantages of her position, and bold and persevering in the adoption of every plan, for improving still further those advantages.

In addition to the direct line of communication, now and for some weeks past, in such successful operation between Philadelphia and Pittsburgh, a new enterprise is about to be undertaken, which will become a direct rival as it were, for the trade of the West, with the Erie Rail Road. It is that connecting, through the waters of the Beaver river and the Mahoning, through the Mahoning valley, Pittsburgh, with the Ohio Canal at Akron—by means of a canal through Trumbull and Portage counties, Ohio. A road, into the heart of that great State is thus opened—direct—avoiding the circuitousness of the Ohio river, and striking the Ohio canal at a point so near Cleveland, as to make it possibly the earliest and easiest route, through that port, to convey merchandise to Michigan, and to the upper parts of Indiana and Illinois.

This work is thus recommended by the Board of Trade of Philadelphia, to the citizens of Pennsylvania.

The Directors of the Board of Trade, observe with great satisfaction that Books are to be opened in this city, on the 27th instant, for subscriptions to the capital stock of the Pennsylvania and Ohio Canal Company, under the very liberal Charter granted by the two States for the purpose of connecting the great Canals of Ohio and Pennsylvania, by a canal along the valley of the Mahoning to intersect the Ohio canal, at or near Akron—a work which has engaged the attention of the Board of Trade since its organization, and which on several occasions they have urged upon the attention of our Legislature and citizens, as an improvement of vital importance to the State and City. And now that the construction of this valuable improvement is placed within our power, the Board would again press

its claims upon the attention of the commercial and landed interest of our city, and upon all who desire to secure to Pennsylvania and Philadelphia the trade of Ohio, the Upper Lakes, and the Illinois and Indiana Canals, which lead to these Lakes. Therefore,

Resolved, That the Directors of the Board of Trade continue to entertain undiminished confidence in the advantages of a connection with the Ohio Canal, by the route of the Mahoning Valley, and of the important benefits which must result to the trade and commerce of our State and City.

Resolved, That this Board recommend to their fellow citizens, to secure the speedy construction of the said Canal, by promptly filling up the stock on the opening of the books.

Thos. P. CORE, President.

J. M. WRIGHT, Secy.

The stock, we need not add, was at once taken up—the work will proceed rapidly—and while the sordid calculations of political and personal interests, are permitted to paralyze the public energies, and to trifle with the highest interests, of this great State, Pennsylvania and Maryland are marching with giant strides, to take possession of those avenues of commerce with the West, which, when once formed, it is always most difficult, and frequently impossible, afterwards to change.

Railroad Meeting.

At a meeting of the citizens of Owego and other towns in the county of Tioga, held at the court house, on Friday evening, 10th inst., for the purpose of expressing their sentiments in relation to the recent rejection, by the Assembly, of the bill for aiding the construction of the New York and Erie Railroad—Hon. S. B. Leonard, was called to the chair, and George J. Pumelly, appointed Secretary.

After a few very spirited and appropriate remarks by the chairman, as also by several other gentlemen present, a committee consisting of L. A. Burrows, T. Farrington, S. B. Leonard, James Pumelly and Henry McCormick, Esquires, were appointed to draft resolutions expressive of the sense of the meeting.

The committee having retired for a short time, reported the following, which were unanimously adopted:

Resolved, That we consider the New York and Erie Railroad an object of the first importance to the State, and that its speedy construction is dictated by the soundest policy.

Resolved, That we entertain a high regard for the ability and experience of Judge Wright, as an Engineer, and that we believe his recent report to the Legislature, relative to the survey of the route for the contemplated Rail Road from New York to Lake Erie, to be entitled to the fullest credit.

Resolved, That in view of the great benefits that would necessarily flow to the State, when this grand work shall have been consummated, and especially to that portion of it through which the road is to pass,—in view of the strong claim which the southern tier of counties have for a participation in that system of internal improvement for which the bounty of the State has so liberally extended to other sections of its territory,—and in view, also, of the fact, that an enterprising and responsible Company, chartered for the purpose, have proposed to enter immediately upon the construction of the work, and prosecute it to completion, on condition that the State would lend its aid, by authorizing a loan to the amount of one third of the stock, for which loan the company offered to furnish the most abundant security,—and from the fact, that this proposition, thus honorable as regards the Company, and safe, as respects the interests of the State, has been contumeliously rejected by one branch of our Legislature—we are reluctantly compelled to believe that there exists a settled determination to cut off from those privileges to which we are legitimately entitled, with the view of advancing the interests of our more favored neighbors at the north. Under all these circumstances, we feel called upon, as citizens of the Southern tier of counties, to express our full, unequivocal, and unqualified disapprobation of the course which has been pursued by the present Legislature, and we do not hesitate to pro-

nounce the policy by which they appear to have been governed in this matter, as unjust and oppressive,—and one which, if persisted in, cannot but be productive of the most pernicious consequences. The claims of the Southern section of the State, have been repeatedly and respectfully submitted, for a number of years in succession, by prayers and petitions, and as often have they been turned off with cold neglect. Forbearance, under such circumstances, cannot longer be considered a virtue. We have RIGHTS in this matter, and we owe to ourselves and to our posterity, independently to assert, and, if possible, maintain them. If sectional interests and influences are thus to be arrayed against us, and our equitable claims forever to be disregarded, we shall be compelled to act on the defensive, and waiving all other considerations, have reference to our own sectional views and interest.

Resolved, That the acknowledgments of this meeting are due to the liberal minded and enterprising directors of the New York and Erie Railroad Company, for the determination manifested by them immediately to commence this great and important work, notwithstanding the refusal of legislative aid for the purpose.

Resolved, That we pledge ourselves to the Directors of the New York and Erie Railroad Company, to sustain them in this spirited and patriotic effort to the best of our ability.

Resolved, That disregarding all minor and party considerations, we will unite with our brethren of the other counties in this sequestered region of the State—in a vigorous and continued effort to assert those rights which have been disregarded and trampled upon, and that we will support no man for office, executive, or legislative, who is not known to be in favor of the New York and Erie Railroad, and who will not exert his utmost effort for the accomplishment of this great and important improvement.

Resolved, That we hereby respectfully request the Members of the Assembly from this county, and the Members of the Senate from this Senate District, to oppose all appropriation of public money for Internal Improvement, until justice shall be done to the southern tier of counties.

Resolved, That we are unwilling to submit our rights, either political or pecuniary, to the control of an Albany interest—and that when the stockholders and stockjobbers of that city, can bring themselves to bear thus effectively upon the legislation of the State—it is high time the Capitol was removed to some other location.

Resolved, That the thanks of this meeting are due to those members of the Assembly, who by their votes, and by their efforts on the floor of the House, sustained the bill for aiding the New York and Erie Railroad Company.

Resolved, That the thanks of this meeting are also due to those conductors of the newspaper press, who have so ably and faithfully sustained the interests of the southern tier of counties.

Resolved, That with a view to that concert of action which is necessary to the efficiency of our future efforts, it is expedient that a General CONVENTION be held at some central point, in the course of the next summer.

Resolved, That we respectfully recommend to our fellow citizens of the southern tier of counties, to appoint delegates to meet in convention at the Court House in the village of Owego, on Wednesday, the 29th day of July next; and that our fellow citizens of the adjacent counties, and all others interested in the construction of the New York and Erie Railroad, be invited to send delegates to said convention.

Resolved, That this meeting recommend to the people of the several towns in the county of Tioga, that a county convention be held at this place, on the 2d Tuesday in June next, for the purpose of appointing delegates to attend the general convention.

Resolved, That for the above purposes, Jedediah Fay, Ezra S. Sweet, and Harmon Pumelly, Esqs. be corresponding committee.

Resolved, That the proceedings of this meeting be signed by the officers thereof and published in the "Owego Gazette" and the other papers of the southern tier of counties; and that the editors of all other papers in the State friendly to the object, be respectfully requested to publish the same.

S. B. LEONARD, Chairman.
G. J. PUMHELLY, Secretary.

Pennsylvania Canals and Railroads.—A friend called at our office yesterday, and stated that he had just met a Western Merchant who had the day before returned from Tennessee, after having received, by way of the Pennsylvania Canals and Railroads, a stock of goods that he had purchased in Philadelphia this Spring. In conversation with the gentleman who communicated this statement, the Tennessean mentioned that a neighbor who travelled with him from the West during his first trip, and who preferred making his purchases in New York, was still in that city waiting for an opportunity to forward his goods by the canals of that state. No wonder our neighbors are anxious for the completion of the Erie Railroad. Goods to the the amount of thousands have been passing westward by way of the Pennsylvania improvements, for more than a month past, and yet the Erie canal has but just been filled with water.

The Argus will doubtless think it very questionable policy in us to republish such a paragraph as that above, from the Philadelphia Inquirer—but we feel nevertheless that it is both right and useful to do so. Until this State, and particularly this city, is made sensible of the enormous advantages which year after year Pennsylvania will derive from her earlier communication with the West by her Railroads and canals, than can be had by us, through the Erie Canal, there will not be aroused here that spirit, which alone is wanting, by making the accomplishment of the Erie and New York Railroad a certainty, to secure to New York very much of what Pennsylvania now monopolizes.

We have recently had occasion to see for ourselves, part of the prodigious benefits which the line of internal improvements from Philadelphia to Pittsburgh, is working to both cities, and to every intermediate point on the way. The point at which the railroad commences in Philadelphia—where within a recent period all was dullness—is now alive with the most hurried movements of an immense trade. Ranges of brick stores of the largest dimensions, built and building, line the street on each side for a great length, burden cars innumerable throng the way—and all that steam and animal power can do, seems insufficient to satisfy the demands that are making for transportation both to and fro on this line.

Philadelphia itself has not known for many years such a trade as she is now carrying on, in sales of merchandise to the West. Merchants in numbers such as she has not before seen, are flocking thither from the valley of the Mississippi to make their purchases—very many of whom would come here in preference, if they could get their goods as early to market. But even though they should buy here and expedite their purchases to Philadelphia—as in twenty-four hours by the means of the Camden and Amboy Road, or Raritan Canal, they can do—they have not the same certainty of having their goods forwarded from Philadelphia, as if they were purchased in that city. This fact was stated in our hearing by merchants from the West—and it is not unnatural that it should be so. It is not pretended that goods bought in New York are always, or even systematically thus held back, but that when there is great pressure and great struggle for preference, the Philadelphia bought goods will have the precedence.

We do not belong to that school of economists which assumes that the prosperity of one city is incompatible with, or adverse to, that of others—and it is not therefore in envy of, or hostility to, the growing greatness of Philadelphia and of Pennsylvania, by reason of her line of canals and railroads, that we desire so earnestly to impress the fact of this prosperity upon our readers. Our motive is to stimulate our own State and people to exertion—there is field enough for both. But if we are su-

pine, Pennsylvania will have by far the largest portion of the field.

If the owners of real estate, and the active merchants of this city, would only go and see for themselves the effect, in Pennsylvania, at this early part of the season, of a ready communication with the Ohio, we venture to say, the stock of the New York and Erie Railroad, the only expedient by which we can share in these benefits, would not remain unfilled another day.

[From the Baltimore American.]

As the recent Act of Pennsylvania, authorizing the extension of the State Canal from Columbia to the Chesapeake Bay, has placed our city in a new and most commanding position in reference to the whole line of Internal improvements of that State, we have thought that a brief notice of the extent and location of those improvements would not be unacceptable to our readers. In their Annual Report to the Legislature, presented in January last, the Canal Commissioners of Pennsylvania say to their fellow-citizens:—"The six hundred miles of Canal and one hundred and twenty miles of Railroad which you directed us to have constructed, are now ready for use." Seven hundred and twenty miles is then the length of the State internal improvements, to which are to be added improvements by private companies, making the entire facilities of transportation by means of Canals and Railroads in the State of Pennsylvania amount in extent to upwards of a thousand miles. We propose rapidly to trace the course of the greater part of this great system, the Main Line of which commences in Philadelphia and ends in Pittsburg.

The Columbia Railroad commences at two points on the Delaware river, the one near the Navy Yard in the southern extremity of Philadelphia, the other in the northern, in what is called the Northern Liberties. The routes from these two points join in the north western part of Philadelphia, and thence the road crosses the Schuylkill by a viaduct of one thousand and eight feet in length, and runs to Columbia, on the Susquehanna river, by a route of eighty-two miles. At Columbia commences the main line of the Pennsylvania Canal, running up the Susquehanna to the mouth of the Juniata, and thence along the Juniata to Hollidaysburg, a distance of one hundred and seventy-two miles. From Hollidaysburg the course westward is continued over the mountains by the Portage Railroad, for thirty-six miles to Johnstown, where the canal navigation is resumed and continued to Pittsburg, the length of the canal from Johnstown to Pittsburg being one hundred and four miles. By this route the whole distance from Philadelphia to Pittsburg is three hundred and ninety-four miles. By the Schuylkill and Union Canals—private works—the latter of which strikes the Pennsylvania Canal at Middletown, seventeen miles above Columbia, the distance is about four hundred and forty miles.

At the junction of the Juniata with the Susquehanna, which takes place about forty-three miles above Columbia, while the main line of the canal ascends along the banks of the Juniata, the northern line continues up the Susquehanna to Northumberland, a distance of about thirty-five miles. There it divides into two branches, one up the North Branch extending a distance of seventy miles to the mouth of the Lackawana, ten miles above Wilkesbarre, and the other up the West Branch by a circuitous route of about the same distance to Dunnstown. These two branches lead into regions that are rapidly improving. That on the North Branch abounds in anthracite coal, and that on the West Branch is bituminous.

By a reference to the map, the reader will perceive that all the improvements north and west of Columbia, the starting point of the Pennsylvania Canal, will be opened to Baltimore by the construction of the canal from that point down to the Maryland line, a distance of only 28 to 30 miles. From the Maryland line to Port Deposit a canal has long existed.

The Locomotive Engine, ordered for the Paterson and Hudson River Railroad, has arrived at this port from Liverpool and will be placed on the rail in a few days.

First Boat at Buffalo.—Extract from a letter dated at Buffalo, 22d April, 8 o'clock, A.M.—"The Troy and Erie Line Boat *Niles*, from Troy, has just arrived with a full cargo of merchandise destined for Ohio, Michigan and Illinois. No other boat has yet arrived from Albany or Troy."

The boats White Pigeon and Nile were the first boats arrived at Rochester which was the 20th inst., both belonging to the Troy and Erie Line.

Lake Open—First Arrival.—On Saturday evening last, the steamboat Wm. Penn, Capt. Dwight, arrived at this port from Detroit. This is the first arrival at the port of Dunkirk this season. The Wm. Penn, we understand, has been fitted up in a neat and handsome style, and has undergone several essential alterations, by which her speed and ability to encounter the frequent rough seas of the lake has been much increased.—[Dunkirk Whig of April 21.]

The Dunkirk Whig of 21st April, says that owing to the late strong winds blowing down the lake for several days past, the ice, which previous to the 21st inst. extended near 50 miles above this place, has been driven down about 10 miles below us, and lies packed up in one solid mass between that and Buffalo, so that it is believed that a navigable communication from Dunkirk to Buffalo will not be opened short of from three to five weeks. Should this be the fact, a vast amount of western produce will find its transit through the Welland canal, giving to the Canadas all the advantages of a trade which of right belongs to the State of New-York.

In connexion with this subject, in relation to an earlier communication between the Lakes and the City of New York, we make use of the following language of the Rochester Democrat: "New York may, if she will, enjoy almost exclusively and forever, the trade of the immeasurable west."

"The New York and Erie Railroad would for the present, secure all that is now secured by the Erie Canal. But this means is, for the present, perhaps for years, put aside. In thrusting it away, the State has struck a suicidal blow at its own prosperity and greatness."

The Burlington Free Press of the 24th, says: "Our steamboats are now all in motion. The Franklin and Phoenix commenced their regular trips yesterday, and will run for the present the same as last season—leaving each end of the Lake at one o'clock, P. M., and meet here about nine."

The Pittsburgh Gazette of the 16th, says: "Business was we believe never so brisk as at present. The Canal is in full and successful operation—steamboats crowded with passengers and with full cargoes, are arriving and departing daily. Our Manufactories have all as much work as they can do. As to our merchants and commission merchants, they are all literally oppressed with business, being usually kept at work from daylight to midnight. We must admit that they bear this pressure most patiently, for we have not heard a single complaint."

The amount of tolls received for transportation on the Pennsylvania Improvements during the week ending the 18th inst. was 20,514 dollars 19 cents—a much larger amount, says the Harrisburg Reporter, than was derived from the same source during the corresponding period of last year.

A meeting of the freeholders of Alexandria was held on the 21st inst., and a resolution passed directing the Common Council to subscribe fifty thousand dollars to the stock of the Alexandria Canal Company, and that for the payment of the interest on this sum a tax to be levied on the real estate of the town.

NEW-YORK AMERICAN.

APRIL 25—MAY 1, 1835.

LITERARY NOTICES.

CONFESSIONS OF A POET, 2 vols. *Philadelphia, CAREY, LEA & BLANCHARD*; for sale here by G. & C. CARVILL.—We hardly know what to make of these handsomely printed volumes. They purport to be confessions, and they unfold a state of mind which is pitiable enough. The story, which is altogether in the dark vein, of disgust of life, of doubt, not to say disbelief, of the future, and of actual guilt, is yet wrought out with occasional power and skill.

There are notes too, some in French, some in English, and one or two in Latin, which are meant to explain, extenuate, or justify the sentiments expressed in the text—and which are misanthropic and unjust enough to human nature. We can conceive no good to be acquired, and not much interest to be experienced, in reading this record of libidinous excesses and sceptical ravings.

JOURNAL OF A RECENT VISIT TO THE PRINCIPAL VINEYARDS OF SPAIN AND FRANCE, &c. &c. by JAS. BUSBY, Esq. N. Y., C. G. FRANCIS. A treatise on wines from New South Wales, is certainly a curiosity in literature, as well as in the progress of civilization, of which wine drinking is in some degree an indication. Mr. Busby having found the climate of the Convict Colony of England, favorable to the grape, determined on visiting the vine districts of the same or merely same climate in Europe, and collecting from them specimens of the most approved vines, and learning the process of making the wine. This therefore is a practical book, and in that point of view of interest even here.

THE PENNY MAGAZINE; THE PENNY CYCLOPEDIA; N. Y., WM. JACKSON 53 Cedar st.; These publications—cheap, accurate, and comprehensive, issued by the London Society for the diffusion of useful knowledge, continue to be regularly published here in monthly numbers, at 12 1/2 cents each.

JAPHET IN SEARCH OF A FATHER—Franklin Library Edition—part 1. N. Y., WALLIS & NEWALL.—This admirable story by Capt. Marryatt is republishing in this library—in numbers which cost 12 1/2 cents each—as fast as it is received from England.

LIVES OF THE ENGLISH PIRATES, HIGHWAYMEN AND ROBBERS; by C. WHITEHEAD. 2 vols.—Philadelphia: E. L. Carey & A. Hart. For sale in New York by Wiley & Long.—The records of crime are always more attractive than those of virtue. We will not stop here to inquire, what principle of our nature it is which determines this preference, but appeal to the fact, that books, such as that now under notice, always find ready sale and willing readers. This compilation, beginning with Robin Hood, and ending with the pickpocket Barrington,—almost a contemporary of the men of this day,—develops a series of crimes, murders, thefts, and violence of all sort, that cannot but be very edifying to all inquirers after, or believers in, the perfectibility of human nature.

DISCOURSES ON VARIOUS SUBJECTS BY REV. ORVILLE DEWEY; 1 VOL: N. Y. DAVID FEIT.—"Cut off by ill health," as the Rev'd author tells us, from his pastoral connexion with a people with whom, during a period of ten years he had been accustomed to meet in the service of religion, he now publishes the sermons preached during that time, as a record of the interest taken by him in his congregation. The volume is dedicated to "the first church and congregation in

New Bedford," and it is must be received by them, to judge from portions of the work we have looked at, with affection and respect.

SKETCHES OF SOCIETY IN GREAT BRITAIN AND IRELAND; by C. S. STEWART. 2 vols. *Carey, Lea & Blanchard*.—This is a second edition, handsomely printed, of a work heretofore noticed by us. Its popularity may, we presume, be inferred from the fact, that it has thus early run to a second edition. We see no reason however, to alter our original opinion, that it is a light work, rather calculated for the eye of partial friendship, than for the ordeal of a calm and cold public.

We have received, and cheerfully publish, the following notice of some little works fraught with moral and religious instruction, which are published by a Society, and are to be had at 205 Broadway:

"**ANN CONOVER**" is the history of a young Irish girl, who, being deprived of her mother by death soon after her arrival in this city, was compelled to resort to domestic service for a support. In her attempts at procuring a situation, she was aided by an affectionate aunt, who was well qualified by long experience and true Christian principles, to instruct her niece in the duties of her station. Her counsels and directions are founded on the only true rule of duty, *the Bible*; and the whole is written in a style of great simplicity and clearness.

This work is well calculated to benefit the large class for whom it is specially designed; and, when we remember how much of our domestic happiness depends upon the proper discharge of the relative duties which devolve on servants and their employers, we cannot but recommend to every lady at the head of a family, first to read "Ann Conover" herself, gleaning many useful hints for her own guidance, and then to place it in the hands of her domestics.

"**THE GOOD RESOLUTION**;" a little book of 69 pages, containing an account of a young girl, who rendered herself uncomfortable, and caused much unhappiness to her parents, by the habit of indulging in a fretful and irritable temper.

On the morning of her fourteenth birth-day, she was induced by the judicious instructions and entreaties of her kind mother to form a solemn resolution to try to subdue her perverse temper. In this resolution, she was enabled to persevere, and succeeded so well, that, before the year had closed, her improvement was hailed with delight by her family, and was the source of new happiness to herself. All little girls who indulge in similar bad habits, are invited to read this account of Isabella Gardner, and "do likewise."

"**THE REFUGEE**;" or story of Archibald Thompson.—This is the narrative of a boy whose mother, anxious for her son's improvement, sent him to a good school six days in the week, and on Sundays, to a good Sunday School.

But, notwithstanding his mother's kindness, and his teachers' faithfulness, he yielded to the influence of evil association, and the power of temptation, until, he was at length, guilty of a crime for which he was summoned before a magistrate, and sent to the House of Refuge. The book commences with an allusion to the *Cities of Refuge*, as once existing in the land of Judea; and then states more particularly the design of a House of Refuge, and its first introduction in the city of New York, and the subsequent creation of a similar building in Philadelphia. Of the arrangements of this latter institution, a minute and

interesting account is given. To it Archibald Thompson was sent, as a place of correction and instruction. This history is continued in another little volume lying before us, called,

"**THE INFIDEL'S CLASS**," the design of which is stated to be, "to remove some of the common difficulties which young men find in the attempts they make to form religious habits, and to furnish them with such rules of conduct, as will enable them to escape from much of the evil that is in the world." In the course of his instructions in the House of Refuge, the teacher was surprised to find seventeen of the older boys, who entirely disbelieved the *Bible*! He at once proposed to form a class to talk about the truth of the *Bible*, and to find out what evidence there might be to support it. The proposal was acceded to, and in five distinct conversations with the boys, various proofs of the authenticity and inspiration of the scriptures are adduced and carefully examined, and objections answered so satisfactorily, that each one of the class separately declared his sincere and honest belief that *the Bible is true*. The book concludes with various directions to Archibald on the occasion of his leaving the Refuge, to live with a respectable farmer in the country.

These little books are elevated in their character, written in an easy perspicuous manner, and treat of subjects so important to all, that, not young readers merely, but those of more matured intellect, may read them with interest and profit. They are besides, presented in a very neat dress, and embellished with many appropriate engravings."

MEMOIRS OF CELEBRATED WOMEN OF ALL COUNTRIES, by MADAME JUNOT, 2 vols.: Philadelphia, CAREY, LEA & BLANCHARD. For sale by G. & C. CARVILL, N. Y. These two volumes will certainly attract attention, for they present very striking pictures. Queens, murderers, women celebrated in letters, and in arms, figure alternately. The list however is far from complete. We give an extract from the life of *Charlotte Corday*, whom love of country, and the excitements of a revolution ary age, made a murderer:

The day after she went to the Palais Royal and bought a sharp-pointed carving-knife, with a black sheath. On her return to the hotel in which she lodged—*Hôtel de Providence, Rue des Augustins*—she made her preparations for the deed she intended to commit next day.—Having put her papers in order, she placed a certificate of her baptism in a red pocket-book, in order to take it with her, and thus establish her identity. This she did because she had resolved to make no attempt to escape, and was therefore certain she should leave Marat's house for the Conciergerie, preparatory to her appearing before the revolutionary tribunal.

Next morning, the 14th, taking with her the knife she had purchased, and her red pocket-book, she proceeded to Marat's residence, No. 18, Rue de l'Ecole de Médecine. The representative was ill, and could not be seen, and Charlotte's entreaties for admission on the most urgent business were unavailing. She therefore withdrew, and wrote the following note, which she herself delivered to Marat's servant.

"CITIZEN REPRESENTATIVE,

"I have just arrived from Caen. Your well known patriotism leads me to presume that you will be glad to be made acquainted with what is passing in that part of the republic. I will call on you again in the course of the day; have the goodness to give orders that I may be admitted, and grant me a few minutes conversation. I have important secrets to reveal to you.

"CHARLOTTE CORDAY." At seven o'clock in the evening she returned, and reached Marat's antechamber; but the woman who waited upon him refused to admit her to the monster's presence. Marat, however, who was

in a bath in the next room, hearing the voice of a young girl, and little thinking she had come to deprive him of life, ordered that she should be shown in. Charlotte seated herself by the side of the bath. The conversation ran upon the disturbances in the department of Calvados, and Charlotte, fixing her eyes upon Marat's countenance as if to scrutinize his most secret thoughts, pronounced the names of several of the Girondist deputies.

"They shall soon be arrested," he cried with a howl of rage, "and executed the same day."

He had scarcely uttered these words, when Charlotte's knife was buried in his bosom.

"Help!" he cried, "help! I am murdered."—He died immediately.

Charlotte might have escaped, but she had no such intention. She had undertaken what she conceived a meritorious action, and was resolved to stay and ascertain whether her aim had been sure. In a short time, the screams of Marat's servant brought a crowd of people into the room. Some of them beat and ill-used her, but the Members of the Section having arrived, she placed herself under their protection. They were all struck with her extraordinary beauty, as well as with the calm and lofty heroism that beamed from her countenance. Accustomed as they were to the shedding of human blood, they could not behold unmoved this beautiful girl, who had not yet reached her twenty-fifth year, standing before them with unblenched eye, but with modest dignity, awaiting their fiat of death for a deed which she imagined would save her country from destruction. At length Danton arrived, and treated her with the most debasing indignity, to which she only opposed silent contempt. She was then dragged into the street, placed in a coach, and Drouet was directed to conduct her to the Conciergerie. On her way thither, she was attacked by the infuriated multitude. Here for the first time she evinced symptoms of alarm. The possibility of being torn to pieces in the streets, and her mutilated limbs dragged through the kennel and made sport of by the infuriated rabble, had never before occurred to her imagination. The thought now struck her with dismay, and roused all her feelings of female delicacy. The firmness of Drouet, however, saved her, and she thanked him warmly.

"Not that I feared to die," she said; "but it was repugnant to my woman's nature to be torn to pieces before every body."

Whilst she was at the Conciergerie, a great many persons obtained leave to see her, and all felt the most enthusiastic admiration on beholding a young creature of surpassing loveliness, with endowments that did honor to her sex, and a loftiness of heroism to which few of the stronger sex have attained, who had deliberately executed that which no man in the country had resolution to attempt, though the whole nation wished it, and calmly given up her life for the public weal.

Charlotte's examination before the revolutionary tribunal is remarkable for the simplicity of her answers. I shall only mention one, which deserves to be handed down to posterity.

"Accused," said the President, "how happened it that thou couldst reach the heart at the very first blow? Hadst thou been practising beforehand?"

Charlotte cast an indescribable look at the questioner.

"Indignation had roused my heart," she replied, "and it showed me the way to his."

When the sentence of death was passed on her, and all her property declared forfeited to the state, she turned to her counsel, M. Chauveau Lagarde: "I cannot, Sir, sufficiently thank you" she said, "for the noble and delicate manner in which you have defended me; and I will at once give you a proof of my gratitude. I have now nothing in the world, and I bequeath to you the few debts I have contracted in my prison. Pray discharge them for me."

When the executioner came to make preparations for her execution, she entreated him not to cut off her hair. "It shall not be in your way," she said; and taking her stay-lace, she tied her thick and beautiful hair on the top of her head, so as not to impede the stroke of the axe.

In her last moments, she refused the assistance of a priest; and upon this is founded a charge of her being an infidel. But there is nothing to justify so foul a blot upon her memory. Charlotte Corday

had opened her mind, erroneously perhaps, to freedom of thought in religion as well as in politics. Deeply read in the philosophic writings of the day, she had formed her own notions of faith. She certainly rejected the communion of the Roman Church; and it may be asked whether the conduct of the hierarchy of France before the revolution was calculated to convince her that she was in error? But because she refused the aid of a man as a mediator between her and God, is it just to infer that she rejected her Creator? Certainly not. A mind like hers was incapable of existing without religion; and the very action she committed may justify the inference, that she anticipated the contemplation, from other than earthly realms, of the happiness of her rescued country.

As the cart in which she was seated proceeded towards the place of execution, a crowd of wretches in the street, even ready to insult the unfortunate, and glut their eyes with the sight of blood, called out: "To the guillotine with her!"

"I am on my way thither," she mildly replied, turning towards them.

She was a striking figure as she sat in the cart. The extraordinary beauty of her features, and the mildness of her look, strangely contrasted with the murderer's red garment which she wore. She smiled at the spectators whenever she perceived marks of sympathy rather than of curiosity, and this smile gave a truly Raphaelesque expression to her countenance. Adam Lux, a deputy of Mayence, having met the cart, shortly after it left the Conciergerie, gazed with wonder at this beautiful apparition—for he had never before seen Charlotte—and a passion, as singular as it was deep, immediately took possession of his mind.

"Oh!" cried he, "this woman is surely greater than Brutus!"

Anxious once more to behold her, he ran at full speed towards the Palais Royal, which he reached before the cart arrived in front of it. Another look which he cast upon Charlotte Corday completely unsettled his reason. The world to him had suddenly become a void, and he resolved to quit it. Rushing like a madman to his own house, he wrote a letter to the revolutionary tribunal, in which he repeated the words he had already uttered at the sight of Charlotte Corday, and concluded by asking to be condemned to death, in order that he might join her in a better world. His request was granted, and he was executed soon after. Before he died, he begged the executioner to bind him with the very cords that had before encircled the delicate limbs of Charlotte upon the same scaffold, and his head fell as he was pronouncing her name.

Charlotte Corday, wholly absorbed by the solemnity of her last moments, had not perceived the effect she had produced upon Adam Lux, and died in ignorance of it. Having reached the foot of the guillotine, she ascended the platform with firm step, but with the greatest modesty of demeanor. "Her countenance," says an eye witness, "evinced only the calmness of a soul at peace with itself."

The executioner having removed the handkerchief which covered her shoulders and bosom, her face and neck became suffused with a deep blush. Death had no terrors for her, but her innate feelings of modesty were deeply wounded at being thus exposed to public gaze. Her being fastened to the fatal plank seemed a relief to her, and she eagerly rushed to death as a refuge against this violation of female delicacy.

When her head fell, the executioner took it up and bestowed a buffet upon one of the cheeks. The eyes, which were already closed, again opened and cast a look of indignation upon the brute, as if consciousness had survived the separation of the head from the body. This fact, extraordinary as it may seem, has been averred by thousands of eye witnesses; it has been accounted for in various ways, and no one has ever questioned its truth.

SUMMARY.

EXTRAORDINARY BALLOON VOYAGE.—The Cincinnati Gazette of the 18th inst., furnishes the following statement by the Aeronaut Mr. Clayton, of by far the longest voyage on record, we believe, in a ship of the air. In January, 1785, Blanchard, and Dr. Jeffries, an American, crossed the channel from England to France in a balloon, a distance of not more than 23 miles. Here the distance gone over is more than 400 miles.

We happened to be in Cincinnati when Clayton

made his ascent on Wednesday, 8th instant, and though we have seen many such performances, never saw one better conducted, or undertaken with more sang-froid. The voyager stood on the top of his car, supporting himself by the hoop through which the ropes passed from the netting of the balloon to it, and waved his flag, as long as he was visible, with as much confidence as though he were on *terra firma*. He told every one that he had with him provisions and clothing, and meant to do something that had never been accomplished before. He has fulfilled his promise amply.

Clayton is an American—a mechanic, we believe, of Cincinnati—and both constructed his own balloon and superintended the preparation of the gas, and the filling of the balloon. It is, too, his first experiment.

MR. CLAYTON'S ACCOUNT OF HIS AERONAUTIC EXCURSION.

At 6 o'clock I took my departure from the Amphitheatre, which was pretty well filled with spectators, the beauty and fashion of the city, and ascended with celerity into the atmosphere, amidst the cheering sounds of music, and the acclamations of my friends. In a few moments I had a full view of Cincinnati, of Newport, and Covington, and of the thousands of spectators that surrounded the amphitheatre, and covered every point which afforded a favorable opportunity of seeing the ascension. I soon arrived at a sufficient altitude to give the spectators a good view of the descent of my parachute, containing a dog of about 20 pounds weight. The parachute, on being liberated from the *Car*, descended with great velocity for a considerable distance before it spread open. When it opened its descent was more slow, and as I watched its course downwards, thought for some time it was falling in the *Canal*, but at last saw it pass a little on one side; and I have no doubt it arrived safe upon *Terra Firma*. As I ascended the scene became more extended and diversified, but every object more diminutive. The spectators shrank to Lilliputians, and the horses and carriages on the roads were like the toys of children. The hills around the city, which form the boundary of one's view when below, sank into the earth, and became on a level with the plain; and far beyond them, amidst the vast woods, I could distinguish numerous towns and cultivated spots. The whole appeared like an extensive map spread at my feet, with every street, and alley, and building, and every improvement plainly marked upon it. Through the centre the Ohio passed, and wound its serpentine course in each direction, until lost in the mist, which surrounded the scene, and for a number of miles I could trace the river Licking, the zig-zag course of the Miami Canal, and the turnpikes and different roads branching from the city. At starting the Barometer stood at 29.3.10 inches, and Thermometer at 72 degrees. The wind carried me east south east, in the direction of Batavia.

At a quarter past 5, the Barometer stood at 19 inches, and the Thermometer 26 degrees, I began to feel cold, and put on my great coat. At this time I heard the report of a Cannon, and could hear at this height the noise of the Woodman's axe. About this time I passed over the Little Miami River, kept the Ohio River a little to my right, and after descending a little I had a fine view of the towns and cultivated spots on each side of me.

A little before six I passed over Batavia, and continued to travel in an East South East direction. My altitude at this time, as indicated by the Barometer, was 21-2 miles. I again felt a little cold; the Thermometer stood at 23 deg. I sat myself down in the *car* and took some refreshment. I was now moving delightfully through the air; the little agitation the balloon received on starting had now ceased, there was not the least rotary or oscillatory motion perceptible; not a ripple in the silk of the balloon to be seen, and all was perfect silence. I could have almost imagined that I was an inhabitant of a little world of my own, fixed in the immensity of space, and could view at my feet, the earth in motion, re-

volving on its axis. I felt no unpleasant sensation, no difficulty in breathing, no pain nor swelling in my head, as has been said by some Aeronauts, to be experienced at great altitudes; but I have no doubt, that at the altitude of 3 1-2 or 4 miles, owing to the rarity of the atmosphere, a difficulty in breathing, and a swelling in the head, is experienced.

At the altitude of 2 1-2 miles, the scenery is not so beautiful as it is when about half a mile from the earth; for the objects appear concealed in mist, and have a monotonous appearance. At 25 minutes after six, I had a fine view of the setting of the Sun; 30 minutes after six I passed over Williamsburg; about 7 o'clock over Georgetown; and although I was several miles distant from the Ohio river, it appeared but very little to the right of me, and I could distinctly see Augusta and Maysville, and the towns and farms alongside of the river. A little before 8 o'clock I passed over West Union. The wind now changed a little to the south, about one point, making S. E. by East. About 9 o'clock, I passed a little to the left of Portsmouth; could see plainly the Scioto River and the canal. I was enabled to see the different places over which I passed by the light of the Moon, and by the lamps and lights in the houses. These lights, which were numerous, and which I could see in every direction in which I turned my eye, formed a field of fiery stars at my feet, and contrasted finely with the brilliant stars that shone in the cloudless hemisphere above me.

A little beyond Portsmouth I had a fine view of the Iron Forges and Furnaces, whose fires illuminated the atmosphere for a number of miles. I could not by the light of the moon, make any Thermometrical observations, the quicksilver in the tube being so small I could not see its height; but the quicksilver in the Barometer being of greater volume, I could plainly see it move up and down; and although I could not see the figures on the scale,—yet, I could tell when I was at a safe distance from the earth, by the distance that the quicksilver stood above a piece of brass which formed a protection to the Thermometer, immediately alongside of the Barometer. Whenever I felt tired, I would seat myself in the bottom of the car, placing the Barometer opposite to me, watch its height, and when I found it rising, would throw out some ballast and counteract its course. Now and then I would look over the car, and notice, particularly, the direction and situation of the water courses which I had in sight, nearly the whole of my voyage, and without which I should not have been able to trace my course. Soon after passing the Scioto River, I entered another current of air, which carried me due East, and immediately over Concord. Soon after I passed into another current, which carried me East North East, and brought me at 11 o'clock, nearly up to Gallipolis, a little below which I crossed the Ohio River. On passing into a new current of air, the Balloon is slightly agitated, at which time I would always be particular in ascertaining its direction. Soon after crossing the O., the Balloon was again agitated, and I found that I had passed from the East North East current, into another, which carried me South East, and soon brought me over the Kanawha River, and from the rapidity the terrestrial objects appeared to move, I found my rate of travelling had increased. At half after 12 I passed over Charleston, and in a few minutes I was carried over the Furnaces of the Kanawha Salt works. I continued this course until I was in sight of the fork formed by Gauley and New rivers.

While in sight of New River I approached the earth: my ballast was nearly exhausted, and as the place over which I was floating appeared to be an open country, I prepared for a descent. I threw overboard my Anchor, which, after dragging for a little distance, caught firmly hold of a tree; but on coming close to the tops I found, to my surprise, that instead of a fine open country, I was in a dense forest, on a considerable elevation. The wind was blowing powerfully, and finding it impossible to break the hold of the anchor, the only way of liberating myself from this situation was to cut away the cable. This I did, and in a short time ascended to an altitude as great as I had previously attained. The cold was intense, but I could not ascertain the height of the Thermometer: I have no doubt it was nearly as low as Zero. I had now lost sight of the water courses, and could see no lights in any direction. I laid myself down in the bottom of the Car, buttoned my coat tightly around me, put on my gloves, covered myself with

two blankets, which I had taken as wrappers for the Balloon, drank some brandy, felt comfortable and highly delighted with my novel trip, and in this situation fell fast asleep. I was awakened, at last, by my Car striking. I immediately sprang on my feet, and in another moment the Car was dragging over the tops of the trees. I saw before me a river and I thought some buildings; they appeared but a little distance from me; but I afterwards found they were about four miles off.

I attempted to stop my Balloon by clinging to the branches of the trees. Several of them broke; but at last I caught hold of a strong bough, and by clinging with all my strength with one hand, and pulling the Valve-rope with the other, I was enabled in a short time to draw my Car down the tree several feet, and to secure it by means of a rope. After being confident that I had secured my balloon, I looked at my watch and found it to be half after 2 o'clock. At this time of the morning I thought it would be useless to go in search of any assistance. I therefore remained in the Car, 40 feet at least from the ground, until day-break, and then descended to explore the wilderness in which I had landed.

I could discover no trace of human footsteps, no mark of change produced by man. Numerous large trees had been levelled to the ground, but there was no mark of the woodman's axe upon them; they had evidently been uprooted by the hurricane. Perceiving that I was on a mountain and that there was another point still higher, I ascended to the top of it and could perceive in the valley, and in the direction that I had seen the river the previous evening, a cultivated spot. After travelling alongside of a beautiful spring rivulet for about 3 miles, I found this spot, but had to follow a track of 2 miles further to get assistance. We conveyed the balloon to the house of Mr. Joseph Graham, a respectable and intelligent farmer with whom I remained 3 days before I could get a conveyance to return. During my stay at Mr. Graham's I was visited by great numbers of people from the surrounding country.

The spot on which I landed, is the top of the mountain, 3000 ft. (as indicated by the Barometer) above the level of the sea, and is called Stevenson's Knob, or Stinson's Knob, near Keeney's Knob, Monroe county, Virginia, about four miles from Green Brier River, 18 miles from Union, 20 miles from Louisburg. I travelled in the Balloon, of three hundred and fifty miles, but according to the usual method of travelling, more than 400 miles, which distance I travelled in 1.2 hours.

This voyage I believe has fulfilled the promise made in my advertisement, and is the longest voyage, by far, ever performed by any person in a Balloon.

EXTRAORDINARY PERFORMANCE.—The purse of \$1000 offered by Mr. J. C. Stevens to any one who should succeed in going ten miles, on foot, within the hour, was yesterday gained, eleven seconds within the time, over the Union Course, L. I., by a Connecticut man, named Henry Stannard, a farmer of Killingworth. Two others, as we learn from the Courier, went the 10 miles, one a Prussian, named George W. Glauer, who did the distance in 60 1-2 minutes—and the other an Irishman named Mahoney, who did it in 61 3-4 minutes.

There were at starting nine competitors, whose names and deeds are thus set forth in the Courier:

	1st	2d	3d	4th	5th	6th	7th	8th	9th	10th	MILES.
Stannard,	3	4	3	3	3	2	2	1	1	1	
Glauer,	2	2	1	1	2	3	3	3	2	2	
Mahoney,	1	1	5	5	4	4	4	4	2	2	
Downes,	5	3	2	2	1	1	1	2	gave in.		
McGarry,	6	7	7	7	5	gave in.					
Wall,	4	5	4	4	gave in.						
Sutton,	8	8	6	6	gave in.						
Malfar,	9	9	8	8	8	fell and gave in.					
Vermillye,	7	6	gave in.								

The winner did not show much fatigue, and was seen soon after riding about the Course.

The other two who went the ten miles received \$200 each.

The Courier gives this statement of the time in which each mile was done by the winner:

	Min.	Sec.
1st. mile.	5	36
2d.	4	45
3d.	5	58
4th.	5	29
5th.	6	3
6th.	6	3
7th.	6	1
8th.	6	3
9th.	5	57
10th.	5	54

It is said that the course is six feet over a mile, making sixty feet more than the ten miles, in the distance run.

Now 60 feet being the 88th part of a mile, it would allow (taking the time of the last mile) four seconds, which is to be deducted, making the distance therefore in 59m. 44s.

The speed of the runners will be best estimated perhaps by stating, that Stannard was accompanied the whole distance by Mr. Stevens on horseback, and that the horse was all the time on a fast canter.

A bill passed the Assembly to-day, by a vote of 89 to 8, subjecting non-resident lands to taxation, for the improvement of roads and bridges, to the same extent that the lands of residents are taxed in the several towns. The bill passed the Senate last week, and only requires the signature of the Governor to become a law. It will be an important law for the western part of the State.—[Albany Evening Journal.]

New Publications—from the press of Messrs. Cary Lea & Blanchard:—"Memoirs of Celebrated Women of all Countries," by Madame Junot—two duodecimos. The translation was made in London, and has been commended there. We doubt not that Madame Junot has acquitted herself well as far as she has proceeded in her interesting task, which will be continued without delay.

"The Juvenile Popular Library"—Boston—published by John Allen & Co. The first volume—a very neat one—of this series, is on *Domesticated Animals*, considered with reference to civilization and the arts. It is well adapted to the instruction and entertainment of youth.

"The American Popular Library"—Boston, duodecimo—conducted by an Association of Gentlemen. The present number is entitled *New England and her Institutions*, and contain some good sketches of New England life. But the eleventh chapter deserves strong reprehension. It consists of foul obloquy on the Irish Catholics, and seems to have been introduced as a seasoning for the book. False anecdotes of priests and Irishmen are told, with a strain of remark such as this—"An Irish Catholic is impervious to reason. It is in vain to argue with him. * * * Look at a gang of fifty Irishmen, and you can select a Yankee, if there be one among them, almost as readily as you could if he were surrounded by so many negroes." Forbear Gentlemen!—[Gazette.]

SEAT OF WAR IN THE NORTHWEST—*Commerce of Hostilities*.—From the latest intelligence received and contained in the following letter in the Cleveland Whig, of April 22d, we regret to perceive that matters are assuming a more serious aspect than we had imagined:

MAUMEE, April 16, 1835.—"With regard to the war, I will say without entering into particulars, that I strongly suspect that blood will be shed here in less than ten days. May God avert it; but if the present rash course of Michigan is pursued, the sword and bayonet will have to determine the controversy. We are driven from our homes for acting under the authority of Ohio; our houses are broken open in the dead of night; citizens taken prisoners, bound hand and foot, and tied to wild fiery horses, gagged that they may not alarm the rest of the citizens; the females too in the same houses are treated with violence by being held and prevented from going to alarm the neighbors; and all this for saying to an individual he need not obey the laws of Michi-

an. After this first attack, 280 horsemen, armed with guns and bayonets, came into our place, took three individuals, two of whom they released. They were not able to take any of the officers, whom they designed to take, and were so exasperated that they fell at the Ohio flag, made out of cotton cloth, and tied it to a horse's tail, and dragged it through the streets and departed. The citizens soon raised another, and three days after they came with an armed force, and took an Irishman for whipping a negro after he had been dared to do it; and took an axe, cut down the tree that contained the flag, and bore it to Monroe as a trophy of their victory, and burnt it.—We can destroy this band of ruffians, but the Governor wishes us to forbear; and it is probably the best. He will probably be molested in remarking our northern line; and then we shall have an opportunity to settle the whole."

THE ARMY—We learn from the Army and Navy Chronicle that General Roger Jones has resigned his commission, in the line of the Army, as Lieutenant Colonel of the Fourth Regiment of Artillery. He retains however, his Staff appointment as Adjutant-General of the Army.

The following List of Promotions, is from the Chronicle:

Major A. S. Brooks, of the 3d Artillery to be Lieutenant-Colonel of the 4th Artillery, vice Jones resigned.

Captain Sylvester Churchill, of the 1st Artillery, to be Major of the 3d Artillery, vice Brooks, promoted.

First Lieutenant Justin Dimick, of the 1st Artillery, to be Captain, vice Churchill, promoted.

Second Lieutenant Edmond French, of the 1st Artillery, to be 1st Lieutenant, vice Ramsey, appointed Captain of Ordnance.

Second Lieutenant, William Palmer, of the 1st Artillery, to be 1st Lieutenant, vice Dimick, promoted.

Brevet 2d Lieutenants T. A. Morris, and R. T. P. Allen, of the 1st Artillery, to be 2d Lieuts., vice French and Palmer, promoted.

Gen. J. E. Wool, one of the inspectors General of the Army, is on a tour of inspection to some of the Northern military posts.

The Branch Bank of the United States at Washington has commenced the operation of winding up its concerns, preparatory to the expiration of the charter.

By the following notice from the *Fredonian*, it will be perceived that the Farmers' & Mechanics' Bank of New Brunswick has resolved to withdraw from circulation all notes of the denomination of those stolen last winter:

To the PUBLIC.

The Farmers' & Mechanics' Bank of New Brunswick, hereby give notice, that in consequence of the depreciation committed upon it in February last, it has withdrawn from circulation its first emission of notes of the denominations of 100 dollars and 50 dollars. None of them are now out, it is believed, but those that were stolen; and they will not, of course, be redeemed.

A new emission, is, however, to be made of these denominations. They will be filled up with red ink; dated on the 1st of May, 1835; made payable, the 100's to C. Dunham, and the 50's to P. Nefus; numbered from 200 upwards; and endorsed by Wm. P. Farman, Assistant Cashier.

By order,

L. CARMAN, Cashier.

New Brunswick, April 12, 1835.

Doings at New Orleans.—The Legislature of New Orleans have enacted that a poll tax of one dollar per head on every cabin passenger, and fifty cents on every deck and steerage passenger that shall arrive at that place by ships or steam boats, shall be collected. The proceeds are to be appropriated, one half to the Charity Hospital; the other half to be divided between the Orphan Asylums, male and female, and the primary schools of the city. A neat mode of levying contributions this; it well becomes that anomaly, a Whig Legislature that elects a Jackson Senator in Congress. Two collectors are to be appointed

whose salaries shall not exceed \$3000 each!!! Such an enactment would produce a pretty sum to Cincinnati.—Quere, as to its policy, liberality or constitutionality?—[Cincinnati Gaz.]

The Estate of the late Mr. Samuel Slater, who died recently at his residence in Webster, Mass., is estimated at about *Two Millions of Dollars*! the result of a life devoted with singular perseverance and industry to the manufacturing business, into which he has introduced many valuable improvements.

The brig *Fairy*, Capt. Josiah Wing, arrived at Boston from Philadelphia, on Thursday morning, having made the trip from Boston to Philadelphia and back, in just fourteen days, with full cargoes both ways.

Battle of Lexington.—An interesting ceremony took place at Lexington, Mass., on Monday, April 20th, in commemoration of the events in 1775. "The concourse of people from that and the neighboring towns, and from Boston," says the Boston Gazette, "was very great. At eleven o'clock, a procession, escorted by two military companies in uniform, under the direction of General Chandler as chief marshal, aided by several assistant marshals, was formed in front of the "Monument House," and proceeded to the burying-ground. Here the remains of Monroe, Parker, Hadley, the two Harringtons, Muzzy, Brown and Porter, the men who fell a sacrifice to the cause of liberty and the country, on the morning of the memorable nineteenth, (which had previously been taken from the grave and placed in a sarcophagus) were received into the procession, drawn on a hearse by a white horse; and the whole proceeded to the Meeting house. The sarcophagus was placed in the aisle fronting the pulpit, the two military companies standing in the aisle." The services of the occasion were as follows: Dirge by the choir; prayer by Rev. Mr. Walker, of Charlestown; Ode,—written by Mr. Pierpont of Boston; Oration by the Hon. Edward Everett; Ode,—written by Miss H. F. Gould. At the close of these services, the procession was again formed, and the Remains were taken to the Monument, where a new tomb had been prepared for their reception. Having completed this interesting ceremony, the procession returned to the "Monument House," in the rear of which, and under a spacious pavilion, a collation had been provided.

Death of Dr. Nutt.—In copying our late contradiction of the decease of Dr. Nott of this State, in travelling from Alexandria, in Egypt, to Cairo, the editor of the Salem Landmark adds the following information:—

We have been informed by an American gentleman, lately returned from Egypt, with whom we have conversed, that the traveller alluded to is not Dr. Nott of New York, but Dr. Nutt of Natchez, in Mississippi. Dr. Nott, accompanied by his son, arrived at Alexandria in the latter part of September last, and immediately proceeded up the Nile, intending to make a geological *reconnaissance* of the Delta, and the valley of the Nile, so far as the second cataracts. He then purposed to cross the desert, to Mount Sinai, and thence passing through Palestine and Syria, to return to Paris, via Constantinople and Vienna.

There were three Americans in Alexandria when Dr. Nutt arrived, and by them he was supposed to be Dr. Nott. They were all delighted with the arrival of their distinguished countryman, and they immediately said he must be introduced to the Pacha, and talk about his inventions. But unfortunately Egypt required no *stoves*, and possessed no *anthracite*: at all events there should be a Yankee improvement upon the oven for hatching chickens. Nutt was, however, soon found to be Nutt, and with this discovery disappeared the Yankee projects of improving Egypt. *Sono singolari assai questi Americani*, said a Piedmontese hakim of Cairo to our informant, *non sono mai contenti*. Very true, he replied, we are always improving.

We may mention some names of American travellers who were in Egypt last year: Mr. Izard, of South Carolina; Stackpole, of Boston; Cohen, of Baltimore; Hammersley, of New-York; Mayo, of South Carolina. Mr. Lowell, of Boston, accompanied by a suit, which distinguished him for taste and opulence, was travelling in Turkey. He was expected in Egypt, and it was said that he designed to visit India by way of the Red Sea.

The brig *Halcyon*, which arrived at Boston from Trieste, reports that she passed Gibraltar on the 14th ultimo, in company with an Austrian Frigate, bound to this country, having on board a large number of ex-patriated Poles.

The following gentlemen were yesterday elected Trustees of the New York Society Library for the ensuing year:—John H. Morgan, Edward W. Leight, David S. Jones, Julian C. Verplank, J. Kearny Rodgers, Evert A. Bancker, John Le Conte, James Campbell, Rev. William Berrian, John Anthon, Henry I. Anderson, Washington Irving.* [Newly elected.]

STATE LANDS AT AUCTION.—The Surveyor-General has given notice, that all the unsold State Lands situated in Buffalo will be sold at Auction—the sale to commence on Monday the 22d day of June next. One-fourth of the purchase money to be paid at the time of sale, and the remainder in six equal annual instalments, with interest at six per cent.

The packet ship *Charlemagne* sailed Friday, for Havre, seventy-three days from the date of her previous departure for the same port. Within that space, she has had on board three full cargoes, and landed two of them on opposite sides of the Atlantic.

Cotton.—The Columbia Telescope of the 17th inst. says: "A choice lot of 20 bales of Cotton, from the plantation of Dr. Herndon, of Union, was sold yesterday by the Hon. Wm. Rice, to Mr. Felix Meeteze, for 18 7-8 cents.—the highest price that has been given in our market this season. Good to fair readily commands from 17 to 17 1-2."

POPULAR EDUCATION.—We consider the annexed act, lately passed by our Legislature, as laying the foundation—if it be duly appreciated and fully carried out, by the inhabitants of the School districts—of a most essential and much needed improvement in our Common School Education.

The smallness comparatively of the sum, must not lead any one to suppose, that the consequences will be in proportion. Far, very far from it. A few books well selected, may inoculate—no one can say how many, minds, and decide their bias forever. The District Library will be the foundation, or we mistake the matter much, of a new and higher order of district instructors; for the master who has scholars that can read, will not be able long to hold his place, if he do not too, both read and think.

We trust the country papers generally will exert themselves to make this law universally known, and to point out the certain and unalloyed benefits, which the establishment of libraries such as it contemplates, must confer upon every district where they are introduced.

An act relating to Public Instruction. Passed April 13, 1835.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

§ 1. The taxable inhabitants of each School District in the State, shall have power, when lawfully assembled at any district meeting, to lay a tax on the district, not exceeding twenty dollars for the first year, for the purchase of a district Library; consisting of such books as they shall, in their district meetings, direct, and such further sum as they may deem necessary for the purchase of a book case. The intention to propose such a tax shall be stated in the notice required to be given for such meeting.

§ 2. The taxable inhabitants of each school district shall also have power, when so assembled in any subsequent year, to lay a tax, not exceeding ten dollars in any one year, for the purpose of making additions to the District Library.

§ 3. The clerk of the District, or such other person as the taxable inhabitants may, at their annual meeting, designate and appoint by a majority of votes, shall be the Librarian of the District; and shall have the care and custody of the Library, under such regulations as the inhabitants may adopt for his government.

§ 4. The taxes authorized by this act to be raised, shall be assessed and collected in the same manner as a tax for building a school house.

Progress of the ancient Egyptians in the Fine and the Useful Arts.—On the right-hand wall are some very elegant vases, of what has been called the Greek style, but common on the oldest tombs in Thebes. They are ornamented as usual with *Archaees* and other devices. Indeed, all these forms of vases, the *Tucas* border and the greater part of the painted ornaments which exist on Greek remains, are found on Egyptian monuments of the earliest epoch, even before the Exodus of the Israelites; which plainly removes all doubt as to their original invention. Above these are curriers, chariot-makers, and other artisans. The semi-circular knife used for cutting leather is precisely similar to that employed in Europe at the present day for the same purpose, of which there are several instances in other parts of Thebes; and another point is here satisfactorily established, that the Egyptian chariots were of wood, and not of bronze, as some have imagined. —[Wilkinson's *General View of Egypt*.]

Literary Confession.—A French author I was reading last night says, he that has written will write again. If the critics do not set their foot upon this first egg that I have laid and crush it, I shall probably verify his observations; and, when I feel my spirits rise, and that I am armed with industry sufficient for the purpose, undertake the production of another volume. At present, however, I do not feel myself so disposed; and, indeed, he that would write should read; not that he may retain the observations of other men, but that, being thus refreshed and replenished, he may find himself in a condition to make and to produce his own. I reckon it among my principal advantages, as a composer of verses, that I have not read an English poet these thirteen years, and but one these twenty years. Imitation, even of the best models, is my aversion; it is servile and mechanical, a trick that has enabled many to usurp the name of author, who could not have written at all, if they had not written upon the pattern of somebody indeed original. But when the ear and the taste have been much accustomed to the manner of others, it is almost impossible to avoid it; and we imitate, in spite of ourselves, just in proportion as we admire. —[Cowper the Poet's Letters.]

Plagues during the Middle Ages.—Every country in Europe, and Italy perhaps more than any other, was visited during the middle ages by frightful plagues, which followed each other in such quick succession that they gave the exhausted people scarcely any time for recovery. The oriental bubo-plague ravaged Italy sixteen times between the years 1117 and 1320. Small-pox and measles were still more destructive than in modern times, and recurred as frequently. St. Anthony's fire was the dread of town and country; and that disgusting disease, the leprosy, which in consequence of the crusades, spread its insinuating poison in all directions, snatched from the paternal hearth innumerable victims, who, banished from human society, pined away in lonely huts, whither they were accompanied only by the pity of the benevolent and their own despair. All these calamities, of which the moderns have scarcely retained any recollection, were heightened to an incredible degree by the Black Death, which spread boundless devastation and misery over Italy. Men's minds were everywhere morbidly sensitive; and as it happens with individuals whose sense, when they are suffering under anxiety, become irritable, so that trifles are magnified into objects of great alarm, and slight shocks, which would scarcely affect the spirits when in health, give rise in them to severe diseases, so it was with this whole nation, at all times so alive to emotions, and at that period so sorely pressed with the horrors of death. —[Hecker's *Epidemics of the Middle Ages*.]

Excitability of the Female Imagination.—The imaginations of women are always more excitable than those of men, and they are therefore, susceptible of every folly when they lead a life of strict seclusion, and their thoughts are constantly turned inwards upon themselves. Hence in orphan asylums hospitals and convents the nervous disorder of one female so easily and quickly becomes the disorder of all. I have read in a good

medical work that a nun, in a very large convent in France, began to mew like a cat; shortly afterwards other nuns also mewed. At last all the nuns roared together every day, at a certain time, for several hours together. The whole surrounding Christian neighborhood heard, with equal chagrin and astonishment, the daily cat-concert, which did not cease until all the nuns were informed, that a company of soldiers were placed by the police before the entrance of the convent, and that they were provided with rods, and would continue whipping them until they promised not to mew any more. But of all the epidemics of females which I myself have seen in Germany, or of which the history is known to me, the most remarkable is the celebrated convent epidemic of the 15th century, which Ovid describes, and which peculiarly proves what I would here enforce. A nun in a German nunnery fell to biting all her companions. In the course of a short time all the nuns of this convent began biting each other. The news of this infatuation among the nuns soon spread, and it now passed from convent to convent throughout a great part of Germany, principally Saxony and Brandenburg. It afterwards visited the nunnery of Holland, and at last the nuns had the biting mania even as far as Rome. —[Dr. Babington.]

Napoleon's Character.—These transactions throw as important a light upon the moral as the intellectual character of Napoleon. To find a parallel to the dissimulation and rapacity by which his conduct to Venice was characterized, we must search the annals of Italian treachery; the history of the nations to the north of the Alps, abounding as it does in deeds of atrocity, is stained by no similar act of combined duplicity and violence. This opens a new and hitherto unobserved feature in his character, which is in the highest degree important. The French republican writers uniformly represent his Italian campaigns as the most pure and glorious period of his history, and portray his character, at first almost perfect, as gradually deteriorated by the ambition and passions consequent on the attainment of supreme power. This was in some respects true; but in others the reverse; his moral character never again appears so base as during his earlier years; and, contrary to the usual case, it was in some particulars improved by the possession of regal power, and to the last moment of his life was progressively throwing off many of the unworthy qualities by which it was first stained. Extraordinary as this may appear, abundant evidence of it will be found in the sequel of this work. It was the same with Augustus, whose early life, disgraced by the proscriptions and horrors of the triumvirate, was almost overlooked in the wisdom and benevolence of his imperial rule. Nor is it difficult to perceive in what principle of our nature the foundation is laid for so singular an inversion of the causes which usually debase the human mind. It is the terrible effect of revolution, as Mad. de Staél has well observed, to obliterate altogether the ideas of right and wrong, and instead of the eternal distinctions of morality and religion, to apply no other test in general estimation to public actions but success. It was of this corrupted atmosphere that the mind of Napoleon, like that of Augustus, at first arose, and it was then tainted by the revolutionary profligacy of the times; but with the possession of supreme power, he was called to nobler employments, relieved from the necessity of committing iniquity for the sake of advancement, and brought in contact with men professing and acting on more elevated principles; and in the discharge of such duties, he cast off many of the stains of his early career. This observation is no impeachment of the character of Napoleon; on the contrary, it is its best vindication. His virtues and talents were his own; his vices in part at least, the fatal bequest of the revolution. * * * United with the great qualities of Napoleon's character, was a selfish thirst for glory, and consequent jealousy of any one who had either effectually thwarted his designs, or rendered him such services as might diminish the lustre of his own exploits. His undying jealousy of Wellington was an indication of the first weakness; his oblivion of Kellermann's inappreciable service, an instance of the

second. When this young officer was brought into the presence of the first consul, after the battle, he coldly said, "You made good charge this evening;" and immediately turning to Bellastre, added, "The guard has covered itself with glory." "I am glad you are pleased," replied Kellermann, "for it has placed the crown on your head." He repeated the same expression in a letter, which was opened at the post office and brought to Napoleon. The obligation was too great to be forgiven. Kellermann was not promoted like the other generals, and never afterwards enjoyed the favor of the chief on whose brow he had placed the diadem. Napoleon, at the same time, was perfectly aware of the immense service rendered by the charge of Kellermann; for he said in the evening to Bourenne, "that little Kellermann made a happy charge. He struck in a critical moment; we owe him much. On what trivial events do affairs depend!—[Alison's *Europe during the French Revolution*.]

Emigrants in America.—A German emigrant generally remains in a large city only as long as he cannot help it; his great and laudable desire is always to get a farm, and to own it. The Irish are, in this respect very different; they prefer the cities, and wherever you meet with a populous place in the United States—I do not only speak of the Atlantic cities, but also of those in the interior, such as Albany, Utica, Cincinnati, Louisville, you are sure to find a great number of poor Irish in and about it. The German, as I said, pushes on; if he has not the means to proceed immediately to the west, and must take his temporary abode in a large place, it is only in order to save, as soon as he possibly can, the requisite sum to carry him and his family to those parts of the Union where land is cheap and fertile. Here again he has not perhaps, the means to purchase a few acres, though Government sells public lands for the low price of one dollar and twenty-five cents per acre. If this is the case, he will first work for another farmer, never, however, losing sight of his main object, the having a farm to himself. As soon as he has it, he loves it as a German trooper loves his horse; it becomes his "all in all," so that he sometimes forgets the proper mental education of his offspring. Scotch emigrants, I imagine, arrive here provided with sufficient means to begin farming immediately, and it is very interesting to see how the Scotch and Germans, among whom I count the Alsatians, since they are French in a political sense only, always show their natural predilections wherever the wide west offers them a fair chance of displaying it. The Scotch uniformly select hilly parts of the country, and dearly love their dairies. Germans prefer the waterside; they settle upon land bordering upon rivers and creeks. The German, the boldest of all in science and knowledge, is slow when he comes to acting; I mean the German who has not left his country, where, by its peculiar state of politics, brisk practical activity is so much cramped in its operation. When he sees other countries, and has free intercourse with their inhabitants, he generally finds his way uncommonly well: for though the German has, as things now stand, originally not much of a practical disposition, his versatility of mind is very great; which is proved as much by the truly noble height of criticism to which German science elevates itself, because it requires his entering into all the views of other nations and ages, as by the success by which the German meets in all climes and under all forms of Government. A Frenchman shifts easier than a German; but his mind has not that degree of versatility to enable him to persevere in a totally new situation. A Yankee is bolder and shrewder than a German, and will often succeed where few others may hope for success; but he is not willing to labor as hard and plod as perseveringly, nor has he that knowledge of languages which the German naturally possesses. The German, in foreign countries, if a man of business, labors always under one great disadvantage; he is not backed and supported by a political nationality. Germans and French change, perhaps, more to their advantage, by travelling and collecting experience in foreign countries, than any other people; the former by obtaining more practical views of things, and learning to keep their diffusive thinking more within definite limits; the latter by becoming more liberal, more reflective, by expanding their

views beyond national vanity. However, who does not or ought not to improve in the latter way by travelling? Certainly, neither John or Jonathan is here excepted. Goethe says, "He who is ignorant of foreign languages is ignorant of his own." And, he who is ignorant of foreign countries is ignorant of his own.

The Philosopher on Horseback.—I never see the word "momentum" but it brings to my recollection an anecdote of an old friend of mine, a Fellow of a college, and a good fellow too, who was used to amuse me much by talking philosophically and mathematically on riding to hounds, the words *momentum*, *vis viva*, and *impetus* being forever on his tongue. With the nerves of a bull-dog, and no mean opinion of his prowess, he was in the habit of purchasing horses, which, from natural or acquired defects, had failed of making hunters in the hands of others. His idea was, that if nature had unfortunately intended such brutes to carry themselves in all forms but the right, that intention could be obviated by the means of mechanical force. To effect this, all sorts of trapping were resorted to; and it was really alarming to men with any nerves at all, to see him sailing across a country with the *momentum*, *vis viva*, and *impetus* all in full operation, on horses with mouths like the heart of oak, but with their heads confined with a strong cavesson-martingal. On one occasion a most ludicrous accident occurred. This gentleman was out with the Duke of Beaufort's hounds, in Oxfordshire, on a horse thus accoutred, when the cavesson he was riding in unfortunately gave way. As may be expected, having no further power over the brute, away went the philosopher, like a ship at sea without a rudder, and, as ill-luck would have it, the *momentum*, the *vis viva*, and the *impetus* all formed their nucleus in the person of an unfortunate butcher on his pony, who was going quietly along a road; and the two riders and their horses were laid prostrate on the ground. —[Nimred's Hunting Tours.]

Chinese Advertisement.—The following is a specimen of the manuscript bills or advertisements, which it is the custom in China to stick up against the walls, when children have been stolen, apprentices have run away, &c. :— "Chaug-Chaoulai, who issues this thanksgiving advertisement, lives outside the south gate in Great Tranquility lane, where he has opened an incense-smoking-mosquito shop. On the evening of the 12th instant, two of his fellow workmen in the shop, Neahung and Atik, employed a stupefying drug, which, by its fumes, sank all the partners in a deep sleep, during which they robbed the shop of all the money, clothes, &c. which they could carry away. Next morning when the partners awoke, no traces was to be found of these two men. If any good people know where they are and will give information, a thanks offering in flowery red paper of four dollars will be presented. Decidedly I will not eat my words. This advertisement is true. Neahung is about 20 years of age, short stature, has a white face, and no beard. Atik, whose surname is not remembered, is upwards of 20 years of age, is tall, and no beard. Reign of Taouk-wong, 9th year, 9th moon, 3d day."—[Mirror.]

Discovery of Valuable Mines in the Pyrenees.— "Two learned Mineralogists, Messrs. Malus Dioritch, have discovered in the Pyrenees, and described, above five hundred mines: some containing gold; others silver, copper, lead, iron, zinc, pyrites, fossil coal, &c. &c. Nearly one half of these mines have been opened; but nearly all of them as soon as glanced at abandoned. This discouragement has followed the very first attempts; frequently through the ignorance of the miners; but nearly always from the want of communication with these high and remote regions."

[To remedy in some degree, the latter evil, it is proposed to extend the Canal of Languedoc from Toulouse to Bayonne.]

[Sterne has told us, "they manage these things better in France." How widows manage to get husbands there, the following advertisement from the *Courrier Français* of the 17th of last month, will show.]

Marriage.—A widow, 46 years of age, without children, and possessing an income of 50,000 francs,

is desirous of uniting herself with a person who has seen the great world (*le grand monde*.) Address Madame de Nauteuil, rue de Bondy, No. 13, post paid.

Intention to enable persons to descend into cellars, buildings, &c. when on fire.—M. Paulin, Colonel in the corps of sapeurs-pompiers, has invented a dress which covers the head and part of the body, without hindering the freedom of his movements, or depriving him of the power of seeing. It is fitted with pipes, by which he is supplied with the air necessary to sustain life; and with others by which he breathes it out again. The air is supplied from without by an ordinary pump. The experiment made has been perfectly satisfactory. They heaped up in the cellar of a hay barrack, wet straw, shavings, rosin, brimstone, &c. No sooner was the fire put to the heap than a thick cloud of fetid smoke issued from all the apertures. As soon as the fire was completely kindled, a *pompier*, protected by the covering of M. Paulin, descended into the cellar, and remained there 19 minutes. The stench of the exhalations which came out of the cellar during this time was such that no one could stand on the highest step of the cellar, without being instantly suffocated. They likewise closed the cellar door and the vent holes.

At length the *pompier* came up, (he had been provided, it should have been stated, with a pipe from a fire engine,) and he had completely extinguished the fire. Doubtless, the high temperature of the cellar on fire had rendered his situation one hard to bear; although he was continually refreshed by the air conveyed to him from without. They found his pulse beat at the rate of 130 per minute; and likewise that the metallic parts of the dress were very hot; notwithstanding, the experiment showed the possibility of conveying assistance where cellars are on fire, without risk to the life of those who undertake the task. It is an invention which renders us indebted to the zeal and ingenuity of M. Paulin.

[The invention would be applicable in many other cases beside those of cellars on fire.]

[From Blackwood's Magazine.]

The Last Journey.

Michaud, in his description of an Egyptian funeral procession, which he met on his way to the cemetery of Rosetta, says,— "The procession we saw pass, stopped before certain houses, and sometimes receded a few steps. I was told that the dead stopped thus before the door of their friends, to bid them a last farewell, and before those of their enemies, to effect a reconciliation before they parted forever."—[Correspondance d'Orient, par M. Michaud et Poujoulat.]

Slowly, with measured tread,
Onward we bear the dead.

To his long home.

Slow grows the homeward road,
On with your mortal load,

O, Grave! we come.

Yet, yet—ah! hasten not

Fast each remembred spot

Where he had been.

Where late he walked on high,
There from henceforth to be

Never more seen.

Yet, yet—ah! slowly move—

Bear not the form we love

Fast from our sight—

Let the air breathe on him.

And the sun beam on him.

Last looks of light.

Rest ye—set down the bier,

One he loved dwelleth here.

Let the dead lie

A moment that door beside,

Wont to fly open wide

Ere he drew nigh.

Hearken!—he speaketh yet—

Oh, friend! will thou forget

(Friend more than brother?)

How hand in hand we've gone.

Heart with heart linked in one—

All to each other?

"Oh friend! I go from thee,

Where the worm feasteth free,

Darkly to dwell.

Giv'st thou no parting kiss?

Friend! is it come to this?

Oh, friend, farewell!"

Uplift your head again,

Take n^d the mourning strain!

Pour the deep wail!

Lo! the expected one

To his place passeth on—

Grave! bid him hale.

Yet, yet,—ah!—slowly move;

Bear not the form we love

Far from our sight—

Let the air breathe on him,

And the sun beam on him.

Last looks of light.

Here dwells his mortal foe;

Lay the departed low,

Even at his gate.

Will the dead speak again,

Uttering proud boasts and vain.

Last words of hate!

Lo! the cold lips unclose.

Last! last! what sounds are those?

Painful and low?

"Oh thou, mine enemy!

Come forth and look on me,

Ere hence I go.

"Curse not thy foeman now,—

Mark! on his pallid brow

Whose seal is set!

Pardon! I passed away—

"Then—wage not war with clay—

Pardon—forget!"

Now his last labor's done!

Now, now the goal is won!

Oh, Grave! we come.

Seal up this precious dust—

Land of the good and just,

Take the soul home!

MILL-DAM FOUNDRY.

ON MONDAY, June 1, at 12 o'clock, at City Hall (unless previously disposed of at a private sale,) will be sold by auction, the above well known establishment, situated one mile from Boston. The improvements consist of—

No. 1. *Boiler House*, 50 feet by 30 feet, containing all the necessary machinery for making boilers for *Locomotives* and other steam Engines.

No. 2. *Blacksmith's Shop*, 30 feet by 20, fitted with cranes for heavy work.

No. 3. *Locomotive House*, 54 feet by 23, used for putting together Locomotive Engines. Several of the best Engines in use in the United States have been put in this establishment.

No. 4. A three story brick building, covered with slate, 130 feet by 46, containing two water-wheels, equal to 40 horse power; Machine Shop, filled with lathes, &c.; Pattern Shop; Rolling Mill and Furnaces, capable of rolling 4 tons of iron per diem, exclusive of other work; three Trip Hammers, one of which is very large; Engine for blowing Cupola Furnaces, moved by water-wheel; one very superior 32 horse Steam Engine, which could be dispensed with; and a variety of other machinery.

No. 5. An Iron Foundry, 80 feet by 43, with a superior furnace and two Cupolas, Core oven, Cranes, &c. fitted for the largest work. Attached to the Foundry is a large ware-house, containing Patterns for the Castings of Hydraulic Presses, Locomotive and other Steam Engines, Lead Mill Rolls, Geering, Shafts, Stoves, Grates, &c. &c. These were made of the most durable materials, under the direction of a very scientific and practical Engineer, and are supposed to be of great value.

No. 6. A building, 65 feet by 36, containing a large stack of chimneys, and furnaces, for making Cast Steel. This building is at present used as a boarding-house, and can accommodate a large number of men.

No. 7. A range of buildings, 200 feet long by 36, containing counting room, several store rooms, a Brass Foundry, room for cleaning castings, a large loft for storing patterns, stable for two horses, &c. &c.

The above establishment being on tide water, presents greater advantages for some kinds of business than any other in the United States. Coal and Iron can be carried from vessels in the harbors of Boston, to the wharf in front of the Factory, at 25 to 30 cents per ton. Some of the largest jobs of iron work have been completed at this establishment; among others, the great chain and lift pumps for freeing the Dry Dock at the Navy Y and Charleston.

The situation for Railroad work is excellent, being in the angle formed by the crossing of the Providence and Worcester Railroads. The Locomotive "Yankee," now running on the latter road, and the "Jonathan," purchased by the State of Pennsylvania, were built at these works. With the Patterns and Machinery now in the premises, 12 Locomotives and as many tenders, besides a great quantity of cars and wagons, could be made per annum.

For terms, apply to

THOS. J. ECKLEY, Treas', &c., Boston, or to

ROBERT RALSTON, Jr., Philadelphia.

Boston, April 21, 1835.

PATENT RAILROAD, SHIP AND BOAT SPIKES.

The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years successful operation and now almost universal use in the United States (as well as England, where the subscriber obtained a Patent,) are found superior to any ever offered in market.

Railroad Companies may be supplied with Spikes having countersink heads suitable to the holes in iron rails, to any amount and on short notice. Almost all the Railroads now in progress in the United States are fastened with Spikes made at the above named factory—of which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Troy, N. Y. July, 1831.

Spikes are kept for sale, at factory prices, by I. & J. Townsend, Albany, and the principal Iron Merchants in Albany and Troy; J. J. Brower, 223 Waterstreet, New York; A. M. Jones, Philadelphia; T. Janvier, Baltimore; Degrard & Smith, Boston.

P. S.—Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his Spikes.

PRICES OF RAILROAD STOCKS,
At the New-York Stock and Exchange Board.

MAY 1, 1835.

	Per.	Mat.	Offer.
Mohawk and Hudson	100	130	129
Paterson	50	111	110
Ithaca and Owego	—	—	—
Saratoga	—	115	115
Harlem	—	108	103
Boston and Providence	100	122	122
New-York and Albany	—	—	—
New-Jersey Railroad and Transportation Line	100	120	119
Camden and Amboy	100	—	—
Providence and Stonington	100	108	103
Boston and Worcester	—	109	108
Philadelphia and Trenton	100	105	103
Utica and Schenectady	100	131	128
Jamaica	—	120	117
Washington	—	121	110

STOCKS HIGHER AND HIGHER.—The Bulls have it all their own way. The Bears suffer most awfully. On Friday several descriptions, which had been deemed too high, took a fresh start—Dry Dock up to 145, higher, we believe, than any Bank stock has sold at in ten years; Mohawk Railroad sold at 130, an advance of twenty-five per cent. in five months. We give the following, to show the most extraordinary rise in stocks in five months.—[Daily Adv.]

Sales, 26th Nov. 1834. 25th April, 1835. Rise.		
Mohawk Railroad	107	130
Patterson	85	115
Saratoga	95	115
Harlem	64	105
Bos. & Prov.	105	126
Utica	106	129
Morris	70	200
Del. & Hud. Canal	72	113
Jackson Marine	91	113
Dry Dock Bank	118	145

[From the Portland Advertiser.]

GOOD NEWS FROM QUEBEC.—We understand that Gov. Dunlap has received a letter from Lord Aylmer, the Governor General of British America at Quebec, stating in substance that he and his government are ready to meet ours in a survey of the route for the proposed Railroad from our Atlantic Sea Board to Quebec, whenever our Government shall appoint the necessary Surveyors and Engineers. The Report in our Legislature on this subject, we are informed, has attracted the attention of the Quebec and Montreal papers, who have republished it and commented upon it at some length. The Montreal people feel but little interest in it, as they have comparatively an easy communication with the Atlantic via New York. But the Quebec people look to this city as their grand outlet and inlet, particularly in the winter, spring, and the months of October and November. The republication of the report in our Legislature in the Quebec newspapers, with the interest felt by the Quebec public in the establishment of such a communication, induced Lord Aylmer to enter upon the subject with zeal—and therefore, he has tendered a co-operation in a survey, to the Governor of Maine. Probably Lord Aylmer, as Governor of Lower Canada, has under his command a corps of Engineers attached to the army stationed at Quebec—or has the power of defraying the expense out of the income arising from the sale of the crown lands—for it seems that he has the power to make the Canada part of the survey without an appropriation by the Colonial Legislature.

Portugal.—The sale of the National property is expected soon to take place, and it is said that orders for purchasing £100,000 worth of it have arrived from different persons in England. Mr. Creig, an English Engineer, is about to Macadamize the road from Lisbon to Cintra. The road between Lisbon and Oporto is also to be improved. The new Minister of the Interior has begun his career well with these improvements in the means of communication.

Lafayette's Tomb.—A simple slab of black marble in the burying ground at Père Lachaise, in Paris, marks the spot where repose the remains of Lafayette. It bears this inscription:—"Here lies M. P. J. R. G. M. de Lafayette, Lieutenant General, Deputy; born at Auvergne, in 1757; married 1776 Mlle. de Nouvelles; died in 1834; buried in peace."

PARTNER WANTED.

Wanted, a partner in an extensive Printing Establishment. No one need apply who is not a thoroughbred printer, competent to superintend and direct an office in which upwards of 30 persons are employed, and able to furnish \$3000 cash capital. The best of references will be given and required. Letters, with real name, may be addressed to P. P. P., Post Office, New-York, postage paid, and they will be promptly attended to.

May 1st

RAILROAD CAR WHEELS AND BOXES, AND OTHER RAILROAD CASTINGS.

Also, AXLES furnished and fitted to wheels complete at the Jefferson Cotton and Wool Machine Factory and Foundry, Paterson, N. J. All orders addressed to the subagents at Paterson, or 60 Wall street, New-York, will be promptly attended to.

Also, CAR SPRINGS.

Also, Flange Tires, made complete.

J. ROGERS, KETCHUM & GROSVENOR.

PATENT HAMMERED SHIP, BOAT, AND RAILROAD SPIKES.

Railroad Spikes of every description required, made at the Albany Spike Factory.

Spike made at the above Factory are recommended to be public as superior to any thing of the kind now in use. Ship and Boat Spikes made full size under the head, as not to admit water.

Orders may be addressed to Messrs. ERASTUS CORNING & CO., Albany, or to THOMAS TURNER, at the Factory, Troy, N. Y.

sept. 12-13

RAILWAY IRON.

95 tons of 1 inch by 1 inch, Flat Bars in lengths of 200 do. 14 do. 14 to 15 feet, counter sunk 40 do. 14 do. do. holes, ends cut at an angle 800 do. 2 do. do. of 45 degrees, with 800 do. 24 do. do. cing plates and nails to suit.

250 do. of Edge Rails of 36 lbs. per yard, with the requisite chairs, keys and pins.

Wrought Iron Rims of 30, 33, and 36 inches diameter for Wheels of Railway Cars, and of 60 inches diameter for Locomotive wheels.

Axes of 24, 28, 32, 3, 34, and 34 inches diameter for Railway Cars and Locomotives of patent iron.

The above will be sold free of duty, to State Governments and Incorporated Governments, and the Drawback taken in part payment.

A. & G. RALSTON.

9 South Front street, Philadelphia.

Models and samples of all the different kinds of Rails, Chairs, Pins, Wedges, Spikes, and Splicing Plates, in use both in this country and Great Britain, will be exhibited to those disposed to examine them.

d71mawor

SURVEYORS' INSTRUMENTS.

Compasses of various sizes and of superior quality warranted.

Leveling Instruments, large and small sizes, with high magnifying powers with glasses made by Troughton, together with a large assortment of Engineering Instruments, manufactured and sold by

E. & G. W. BLUNT, 154 Water street,

J31 6t corner of Maiden lane.

SURVEYING AND ENGINEERING INSTRUMENTS.

The subscriber manufactures all kinds of Instruments in his profession, warranted equal, if not superior, in principles of construction and workmanship to any imported or manufactured in the United States; several of which are entirely new, among which are an Improved Compass, with a Telescope attached, by which angles can be taken with or without the use of the needle, with perfect accuracy—also a Railroad Goniometer, with two Telescopes—and a Leveling Instrument, with a Goniometer attached, particularly adapted to Railroad purposes.

WM. J. YOUNG,

Mathematical Instrument Maker,

No. 9 Dock st., Philadelphia.

The following recommendations are respectfully submitted to Engineers, Surveyors, and others interested.

Baltimore, 1832.

In reply to thy inquiries respecting the instrument manufactured by thee, now in use on the Baltimore and Ohio Railroad, I cheerfully furnish thee the following information. The whole number of Levels now in possession of the department of construction of thy make is seven. The whole number of the "Improved Compass" is eight. These are all exclusive of the number in the service of the Engineer and Graduation Department.

Both Levels and Compasses are in good repair. They have in fact needed but little repair, except from accidents to which all instruments of the kind are liable.

I have found that thy patterns for the levels and compasses have been preferred by my assistants generally, to any others in use, and the Improved Compass is superior to any other description of Goniometer that we have yet tried in laying the rails on this Road.

This instrument, more recently improved with a reversing telescope, in place of the vanes sights, leaves the engineer scarcely any thing to desire in the formation or convenience of the Compass. It is indeed the most completely adapted to lateral angles of any simple and cheap instrument that I have yet seen, and I cannot but believe it will be preferred to all others now in use for laying of rails—and in fact, when known, I think it will be as highly appreciated for common surveying.

Respectfully thy friend,
JAMES P. STABLER, Supt of Construction
of Baltimore and Ohio Railroad.

Philadelphia, February, 1833.

Having for the last two years made constant use of Mr. Young's "Patent Improved Compass," I can safely say I believe it to be much superior to any other instrument of the kind, now in use, and as such most cheerfully recommend it to Engineers and Surveyors.

E. H. GILL, Civil Engineer.

Germantown, February, 1833.

For a year past I have used Instruments made by Mr. W. J. Young, of Philadelphia, in which he has combined the properties of a Theodolite with the common Level.

I consider these Instruments admirably calculated for laying out Railroads, and can recommend them to the notice of Engineers as preferable to any others for that purpose.

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